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COMMONWEALTH OF MASSACHUSETTS

DES

DIVISION OF EMPLOYMENT SECURITY

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AN OCCUPATIONAL PROFILE
OF
SELECTED MANUFACTURING INDUSTRIES
IN
MASSACHUSETTS
1983

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FOREWORD

The Occupational Employment Statistics Program is part of a Federal-State cooperative program involving State Employment Security Agencies (SESA's) as well as the Employment and Training Administration (ETA) and the Bureau of Labor Statistics (BLS). It was designed to meet the needs of economists, employment specialists, educators, counselors and others for current data on employment by occupations as well as projected data on employment by occupation and industry.

This publication is the nineteenth in a series on Current Occupational Profiles of Massachusetts Industries. The information is used in updating the industry-occupation matrix and as a data base for projecting future employment trends. Copies of all previous survey publications are available for reference in our Research Library.

Our sincere appreciation is extended to the many employers who participated in this survey, without whose support this labor market information would not be available. Acknowledgement for support is also made to the U. S. Department of Labor and in particular to the Bureau of Labor Statistics - both on national and regional levels - for their technical support. We also wish to recognize the contribution of the data processing department, the clerical unit, the reproduction unit and methods and procedures.

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METHODOLOGY

The Sample

The second quarter 1983 report (ES 202) of employment and wages covered by the Massachusetts Employment Security Law was used as a sampling frame for the Occupational Employment Statistics survey of manufacturing establishments.

The sampling frame was stratified by three-digit SIC's (Standard Industrial Classification) and by nine employment size classes. Establishments with less than four employees were excluded from the sample and all units with employment of two hundred and fifty or more were automatically included. All other establishments were subject to sample selection on a random basis, with the units in larger size classes having a proportionately higher chance of selection. Each unit was given a weight according to the proportion of firms selected in each size class. The sample included 3,831 establishments with benchmark of 508,253.

The Survey and Responses

Each establishment was mailed a survey schedule; telephone calls and personal visits were made where the date was critical for calculating valid estimates. As many as three follow-up schedules were mailed to nonrespondents. Of the 3,831 establishments in the survey, replies were received from 2,840 or 74.1 percent. After manual editing and mechanical (computer) screening, 2,657 responses with total employment of 334,762 were determined useable, 65,9 percent of sample employment.

The Estimating Procedure

All useable responses were stratified into seven size groups, by industry. Reported total employment (or the summed occupational employment) from each useable response was multiplied by the weight assigned during sample selection. These industry data were then divided into the employment in the ES-202 report for the reference month of the survey (stratified by corresponding size class cells). The result produced by the procedure is known as the benchmark factor. This factor was then applied to the occupational data, thus accounting for nonresponse. These occupational estimates were then summed across size classed to industry totals.

Sampling Error

Sampling error is an arithmetic measure of the precision of the estimate. It is the difference between the estimate computed from the sample and the result that would have been obtained if the same methods were used to collect identical information from the universe. The relative errors listed in this report are the sampling errors of each occupation expressed as a percent of that occupational estimate. The relative errors shown are such that the chances are 2 out of 3 that the results of collecting identical information from the entire population would not differ by more than the percent of relative error shown; the chances are 19 out of 20, that the results of collecting identical information from the entire population would not differ by more than twice the percent shown. For example, it is estimated in this report that there are 570 secretaries employed in SIC 20,Food and Kindred Products, making up 2.30 percent of total employment in the industry. Thus, the chances are about 68 out of 100 that the results of comparable full scale data collection would differ by less than 74 (13 percent) from the 570 estimated;similarly the estimated 2.30 percent of total employment would differ by less than 0.30 percent of total employment.

Nonsampling Error

The results of this survey are subject to biases and other nonsampling errors. Although careful editing and screening steps were taken, responding establishmentments may account for some errors in computations and processing, as well as placing workers in a wrong occupation. The nonrespondents are a source of nonsampling error for which measures are not available but are reflected in the estimating procedure.

SCOPE OF SURVEY

This survey covered all Standard Industrial Classifications in the Manufacturing Division of the 1972 Manual. For your convenience listed below are the two-digit SIC Codes with their short titles.

SIC Code	SHORT TITLES
20	Food and Kindred Products
21	Tobacco Manufactures
22	Textile Mill Products
23	Apparel and Other Textile Products
24	Lumber and Wood Products
25	Furniture and Fixtures
26	Paper and Allied Products
27	Printing and Publishing
28	Chemicals and Allied Products
29	Petroleum and Coal Products
31	Leather and Leather Products
32	Stone, Clay, and Glass Products
33	Primary Metal Products
34	Fabricated Metal Products
35	Machinery, except Electrical
36	Electrical Equipment and Supplies
37	Transportation Equipment
38	Instruments and Related Products
39	Miscellaneous Manufacturing Products

Based on 1972 SIC Codes

MANUFACTURING EMPLOYMENT*
ANNUAL AVERAGES 1980-1983

SIC		1980 1/	1981	1982	1983	Percent Change 80-83
	TOTAL	674.9	669.4	636.9	634.7	- 6.0
	Durables	411.3	411.5	392.0	415.1	+ .9
	Nondurables	263.4	257.9	244.9	219.5	-16.7
20	Food	27.4	25.4	24.7	24.4	-10.9
22	Textiles	25.6	24.3	20.9	20.2	-21.1
23	Apparel	39.8	39.6	37.3	35.9	- 9.8
24-25	Lumber & Furniture	13.3	13.0	11.5	12.0	- 9.8
26	Paper	28.2	27.2	26.2	25.8	- 0.7
27	Printing	44.1	45.1	45.5	47.5	+ 7.7
28	Chemicals	18.4	18.4	17.5	16.8	- 8.7
30	Rubber	30.6	29.5	29.4	30.5	- .3
31	Leather	21.4	20.9	18.6	16.9	-21.0
32	Stone, Clay, Glass	13.1	12.8	11.7	11.2	-14.5
33	Primary Metals	17.5	17.2	15.4	13.3 2/	-24.0
34	Fabricated Metals	53.4	51.5	57.3	46.1	-13.7
35	Nonelectrical Machinery	109.6	109.9	104.5	102.5	- 6.5
36	Electrical Machinery	110.5	112.3	111.6	114.8 2/	+ 3.9
37	Transportation	35.4	33.2	30.9 2/	35.0	- 1.1
38	Instruments	58.5	61.7	59.1	57.9	- 1.0
39	Miscellaneous Mfg.	26.6	25.6	23.1	22.4	-15.8
21-29	Other Nondurables	1.5	1.9	1.7	1.5	0

Source: ES-202

1/ Year of last manufacturing survey

* May not add due to rounding

2/ Industries with significant non-economic code changes.

Annual averages do not reflect non-economic code changes.

PERCENTAGE DISTRIBUTION
Of
MANUFACTURING EMPLOYMENT*

ANNUAL AVERAGES 1980-1983

SIC		1980 1/	1981	1982	1983
	TOTAL	674.9	669.4	636.9	634.8
	Durables	60.9	61.5	61.5	65.4
	Nondurables	39.1	38.5	38.5	34.6
20	Food	4.1	3.8	3.9	3.8
22	Textiles	3.8	3.6	3.3	3.2
23	Apparel	5.9	5.9	5.9	5.7
24-25	Lumber and Furniture	2.0	1.9	1.8	1.9
26	Paper	4.2	4.1	4.1	4.1
27	Printing	6.5	6.7	7.1	7.5
28	Chemicals	2.7	2.7	2.7	2.6
30	Rubber	4.5	4.4	4.6	4.8
31	Leather	3.2	3.1	2.9	2.7
32	Stone, Clay, Glass	1.9	1.9	1.8	1.8
33	Primary Metals	2.6	2.6	2.4	2.1
34	Fabricated Metals	7.9	7.7	7.4	7.3
35	Nonelectrical Machinery	16.2	16.4	16.4	16.1
36	Electrical Machinery	16.4	16.8	17.5	18.1
37	Transportation	5.2	5.0	4.9	5.5
38	Instruments	8.7	9.2	9.3	9.1
39	Miscellaneous Mfg.	3.9	3.8	3.6	3.5
21-29	Other Nondurables	0.2	0.3	0.3	0.2

Source: ES-202

1/ Year of last manufacturing survey

* May not add due to rounding

SIC 20

This major group includes establishments manufacturing or processing foods and beverages for human consumption, and certain related products, oils, and prepared feed for animals and fowls.

Employment in the food and kindred products industry of 24,400 workers accounted for a 3.8 percent share of the total 1983 manufacturing employment, declining from a 4.1 percent share in 1980. Contributing to the decline was the continued decrease in demand for prepared foods by the ever increasing number of fast food outlets and the increased use of labor saving automated equipment by the food processors.

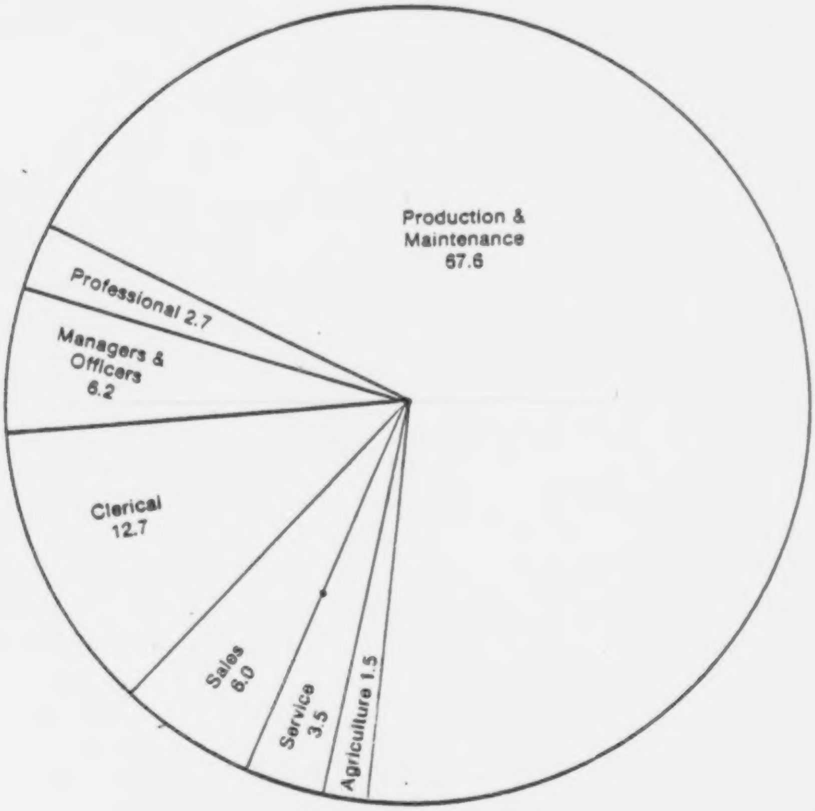
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	20	201	202	203	205	208
TOTAL	100%	100%	100%	100%	100%	100%
Managerial & Administrative	6.14	5.08	9.38	5.00	5.35	7.76
Profess., Paraprofess., Tech.,Occs.	2.70	0.85	4.44	2.50	1.56	4.74
Sales and Related Occs.	5.98	6.78	7.16	6.25	9.35	10.78
Clerical & Admin. Support Occs.	12.69	7.63	19.01	15.00	9.80	13.79
Service Occs.	3.49	0.85	0.99	3.75	7.80	3.02
Agri., Forestry, Fish., Rel. Occs.	1.46	0.42	--	3.13	--	--
Prod., Construc., & Maint., Occs.	67.54	77.54	59.01	64.38	65.92	60.78

The majority of occupations in this industry, 67 percent, are in the production and maintenance category wih 2,380 jobs for machine operators and tenders followed by 1,940 jobs for hand packers and packagers. Other than in the production area the two most important occupations are top executives with 1,020 jobs and sales representatives employing 630 people.

FOOD AND KINDRED PRODUCTS (SIC 20)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	All Other Machine Operators and Tenders	2,380
2.	Hand Packers and Packagers	1,940
3.	All Other Hand Workers	1,530
4.	All Other Helpers, Laborers, and Material Movers, Hand	1,520
5.	Driver/Sales Workers	1,180
6.	General Managers and Top Executives	1,020
7.	Supervisors, Production and Operating Workers	850
8.	Truck Drivers, Heavy or Tractor Trailer	670
9.	Sales Representatives, except Scientific Products and Retail	630
10.	Truck Drivers, Light - Include Delivery and Route Workers	580

These 10 occupational categories make up 49.7% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
FOOD AND KINDRED PRODUCTS
SIC = 20
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	24,740	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,520	6.14	N/A
FINANCIAL MANAGERS	120	0.49	17
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	50	0.20	21
PURCHASING MANAGERS	30	0.12	22
ADMINISTRATIVE SERVICES MANAGERS	40	0.16	36
GENERAL MANAGERS AND TOP EXECUTIVES	1,020	4.12	15
ALL OTHER MANAGERS AND ADMINISTRATORS	260	1.05	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	660	2.67	N/A
ACCOUNTANTS AND AUDITORS	220	0.89	14
ALL OTHER FINANCIAL SPECIALISTS	20	0.08	N/A
PURCHASING AGENTS AND BUYERS-FARM PRODUCTS	30	0.12	30
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.12	23
COST ESTIMATORS	20	0.08	29
COMPLIANCE OFFICERS & ENFORCEMENT INSPECTORS	10	0.04	20
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	0.24	N/A
MECHANICAL ENGINEERS	30	0.12	28
ALL OTHER ENGINEERS	20	0.08	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.08	N/A
AGRICULTURAL AND FOOD SCIENTISTS	20	0.08	33
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	80	0.32	N/A
COMPUTER PROGRAMMERS	70	0.28	27
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.04	33
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	0.08	N/A
SALES AND RELATED OCCUPATIONS	1,480	5.98	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	150	0.61	26
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	140	0.57	34
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	630	2.55	17
SALESPERSONS, RETAIL	320	1.29	43
ALL OTHER SALES AND RELATED WORKERS	240	0.97	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,140	12.69	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	50	0.20	20
SECRETARIES	570	2.30	13
RECEPTIONIST AND INFORMATION CLERKS	20	0.08	27
TYPISTS	60	0.24	34

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1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FOOD AND KINDRED PRODUCTS
SIC = 20
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.08	27
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	100	0.40	23
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	540	2.18	11
PAYROLL AND TIMEKEEPING CLERKS	40	0.16	20
BILLING, COST AND RATE CLERKS	130	0.53	14
GENERAL OFFICE CLERKS	460	1.86	15
BILLING, POSTING, CALCULATING MACH. OPERATORS	20	0.08	31
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.16	18
DATA ENTRY KEYERS, EXCEPT COMPOSING	90	0.36	15
ALL OTHER OFFICE MACHINE OPERATORS	10	0.04	N/A
SWITCHBOARD OPERATORS	40	0.16	23
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	60	0.24	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	570	2.30	16
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	270	1.09	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	50	0.20	N/A
SERVICE OCCUPATIONS	860	3.48	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	100	0.40	32
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	530	2.14	15
ELEVATOR OPERATORS	20	0.08	18
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	30	0.12	50
ALL OTHER SERVICE WORKERS	210	0.85	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	360	1.46	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	360	1.46	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	16,710	67.54	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	80	0.32	23
SUPERVISORS-PRODUCTION & OPERATING WORKERS	850	3.44	17
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	80	0.32	16
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	60	0.24	20
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	120	0.49	23
MACHINERY MAINTENANCE MECHANICS	510	2.06	15
MAINTENANCE REPAIRERS, GENERAL UTILITY	400	1.62	19
COIN AND VENDING MACHINE SERVICER & REPAIRERS	100	0.40	33
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	200	0.81	N/A
ELECTRICIANS	60	0.24	18
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	30	0.12	30
ALL OTHER CONSTRUCTION TRADES WORKERS	60	0.24	N/A
MACHINISTS	30	0.12	16
SHEET METAL WORKERS	10	0.04	32

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1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FOOD AND KINDRED PRODUCTS
SIC = 20
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SLAUGHTERERS AND BUTCHERS	60	0.24	30
BAKERS, MANUFACTURING	400	1.62	25
FOOD BATCHMAKERS	410	1.66	23
ALL OTHER PRECISION FOOD AND TOBACCO WORKERS	80	0.32	N/A
COOKING MACHINE OPER, TENDERS, FOOD, TOBACCO	220	0.89	23
ROASTING, BAKING & DRYING MACHINE OPERATORS	260	1.05	24
BOILER OPERATORS AND TENDERS, LOW PRESSURE	20	0.08	19
DAIRY PROCESS EQUIPMENT OPERATORS & SETTERS	380	1.54	19
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	570	2.30	26
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	30	0.12	28
EXTRUDING, FORMING, PRESSING MACHINE OPERATOR	160	0.65	25
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	90	0.36	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	2,380	9.62	N/A
ALL OTHER HAND WORKERS	1,530	6.18	N/A
STATIONARY ENGINEERS	20	0.08	32
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.04	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	670	2.71	15
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	580	2.34	34
DRIVER/SALES WORKERS	1,180	4.77	20
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.04	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	370	1.50	14
CONVEYOR OPERATORS AND TENDERS	40	0.16	15
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.04	N/A
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	60	0.24	4
MACHINE FEEDERS AND OFFBEARERS	440	1.78	28
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	540	2.18	27
HAND PACKERS AND PACKAGERS	1,940	7.84	23
VEHICLE WASHERS AND EQUIPMENT CLEANERS	150	0.61	35
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,520	6.14	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# MEAT PRODUCTS
SIC = 201
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,360	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	120	5.08	N/A
FINANCIAL MANAGERS	10	0.42	14
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.42	N/A
ADMINISTRATIVE SERVICES MANAGERS	10	0.42	28
GENERAL MANAGERS AND TOP EXECUTIVES	70	2.97	13
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.85	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	20	0.85	N/A
ACCOUNTANTS AND AUDITORS	10	0.42	35
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.42	N/A
SALES AND RELATED OCCUPATIONS	160	6.78	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	80	3.39	13
ALL OTHER SALES AND RELATED WORKERS	90	3.81	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	180	7.63	N/A
SECRETARIES	20	0.85	22
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	1.69	17
GENERAL OFFICE CLERKS	20	0.85	29
ALL OTHER OFFICE MACHINE OPERATORS	10	0.42	N/A
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	20	0.85	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	1.69	15
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.42	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.85	N/A
SERVICE OCCUPATIONS	20	0.85	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	**	0.00	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.85	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	10	0.42	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	10	0.42	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,830	77.54	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	40	1.69	24
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	40	1.69	12
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	20	0.85	N/A
MACHINERY MAINTENANCE MECHANICS	20	0.85	28
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	1.69	15
SLAUGHTERERS AND BUTCHERS	50	2.12	33
ALL OTHER PRECISION FOOD AND TOBACCO WORKERS	60	2.54	N/A
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.42	N/A
CUTTING, SLICING MACH OPERATORS AND TENDERS	20	0.85	24

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEAT PRODUCTS
SIC = 201
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	130	5.51	21
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	110	4.66	17
ALL OTHER MACHINE OPERATORS AND TENDERS	70	2.97	N/A
MEAT,POULTRY,FISH CUTTERS & TRIMMERS- HAND	250	10.59	19
ALL OTHER HAND WORKERS	30	1.27	28
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.42	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	60	2.54	32
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.85	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	70	2.97	N/A
HAND PACKERS AND PACKAGERS	180	7.63	25
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	620	26.27	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
DAIRY PRODUCTS
SIC = 202
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,050	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	380	9.38	N/A
FINANCIAL MANAGERS	40	0.99	20
PURCHASING MANAGERS	10	0.25	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	40	0.99	17
ADMINISTRATIVE SERVICES MANAGERS	20	0.49	25
INDUSTRIAL PRODUCTION MANAGERS	10	0.25	32
ALL OTHER MANAGERS AND ADMINISTRATORS	260	6.42	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	180	4.44	N/A
ACCOUNTANTS AND AUDITORS	50	1.23	29
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.49	26
COST ESTIMATORS	10	0.25	32
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.25	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	30	0.74	N/A
AGRICULTURAL AND FOOD SCIENTISTS	10	0.25	31
COMPUTER PROGRAMMERS	10	0.25	32
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.25	25
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	30	0.74	N/A
SALES AND RELATED OCCUPATIONS	290	7.16	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	1.23	23
ALL OTHER SALES AND RELATED WORKERS	240	5.93	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	770	19.01	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.25	23
SECRETARIES	220	5.43	22
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.25	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	140	3.46	29
BILLING, COST AND RATE CLERKS	50	1.23	13
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.49	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	40	0.99	16
SWITCHBOARD OPERATORS	10	0.25	33
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	270	6.67	N/A
SERVICE OCCUPATIONS	40	0.99	N/A
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	10	0.25	8
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.49	30
ALL OTHER SERVICE WORKERS	10	0.25	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,390	59.01	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	270	6.67	N/A
ELECTRICIANS	20	0.49	32
ALL OTHER CONSTRUCTION TRADES WORKERS	50	1.23	N/A
FOOD BATCHMAKERS	30	0.74	31

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
DAIRY PRODUCTS
SIC = 202
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION FOOD AND TOBACCO WORKERS	10	0.25	N/A
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.25	32
DAIRY PROCESS EQUIPMENT OPERATORS & SETTERS	380	9.38	19
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	20	0.49	30
ALL OTHER MACHINE OPERATORS AND TENDERS	270	6.67	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	190	4.69	23
ALL OTHER MOTOR VEHICLE OPERATORS	630	15.56	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	60	1.48	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	220	5.43	33
VEHICLE WASHERS AND EQUIPMENT CLEANERS	50	1.23	34
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	200	4.94	N/A

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# TABLE
# OCCUPATIONS OF EMPLOYEES
# PRESERVED FRUITS AND VEGETABLES
SIC = 203
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,600	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	80	5.00	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	70	4.38	19
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.63	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	40	2.50	N/A
ALL OTHER FINANCIAL SPECIALISTS	10	0.63	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.63	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	1.25	N/A
SALES AND RELATED OCCUPATIONS	100	6.25	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	1.25	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	10	0.63	35
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	60	3.75	26
ALL OTHER SALES AND RELATED WORKERS	10	0.63	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	240	15.00	N/A
SECRETARIES	40	2.50	17
TYPISTS	10	0.63	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	1.88	20
GENERAL OFFICE CLERKS	40	2.50	21
ALL OTHER OFFICE MACHINE OPERATORS	10	0.63	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	**	0.00	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	40	2.50	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	60	3.75	27
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.63	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	1.25	N/A
SERVICE OCCUPATIONS	60	3.75	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.63	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	3.13	33
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	50	3.13	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	50	3.13	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,030	64.38	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	80	5.00	20
MACHINERY MAINTENANCE MECHANICS	30	1.88	33
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	1.88	25
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.63	N/A
ALL OTHER PRECISION FOOD AND TOBACCO WORKERS	10	0.63	N/A
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	60	3.75	28
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	220	13.75	21
ALL OTHER MACHINE OPERATORS AND TENDERS	60	3.75	N/A
ALL OTHER HAND WORKERS	10	0.63	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PRESERVED FRUITS AND VEGETABLES
SIC = 203
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	40	2.50	21
ALL OTHER MOTOR VEHICLE OPERATORS	20	1.25	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	60	3.75	8
CONVEYOR OPERATORS AND TENDERS	30	1.88	N/A
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	60	3.75	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	70	4.38	N/A
HAND PACKERS AND PACKAGERS	140	8.75	33
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	100	6.25	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
BAKERY PRODUCTS
SIC = 205
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,490	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	240	5.35	N/A
FINANCIAL MANAGERS	10	0.22	12
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.22	12
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.45	34
GENERAL MANAGERS AND TOP EXECUTIVES	180	4.01	26
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.67	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	70	1.56	N/A
ALL OTHER FINANCIAL SPECIALISTS	40	0.89	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.45	N/A
ALL OTHER ENGINEERS	10	0.22	N/A
SALES AND RELATED OCCUPATIONS	420	9.35	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	30	0.67	N/A
ALL OTHER SALES AND RELATED WORKERS	390	8.69	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	440	9.80	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.22	29
ALL OTHER SECRETARIES	30	0.67	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	70	1.56	24
PAYROLL AND TIMEKEEPING CLERKS	10	0.22	10
BILLING, COST AND RATE CLERKS	30	0.67	34
GENERAL OFFICE CLERKS	110	2.45	27
ALL OTHER OFFICE MACHINE OPERATORS	10	0.22	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.22	25
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	170	3.79	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.22	N/A
SERVICE OCCUPATIONS	350	7.80	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	60	1.34	N/A
ALL OTHER FOOD SERVICE WORKERS	120	2.67	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	170	3.79	32
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,960	65.92	N/A
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	20	0.45	28
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	280	6.24	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	20	0.45	N/A
MACHINERY MAINTENANCE MECHANICS	130	2.90	33
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	110	2.45	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	30	0.67	N/A
BAKERS, MANUFACTURING	400	8.91	26
ALL OTHER PRECISION FOOD AND TOBACCO WORKERS	20	0.45	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	110	2.45	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BAKERY PRODUCTS
SIC = 205
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MACHINE OPERATORS AND TENDERS	400	8.91	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.22	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	140	3.12	25
ALL OTHER MOTOR VEHICLE OPERATORS	360	8.02	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.45	N/A
HAND PACKERS AND PACKAGERS	420	9.35	33
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	500	11.14	N/A

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N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# BEVERAGES
SIC = 208
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,320	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	180	7.76	N/A
FINANCIAL MANAGERS	20	0.86	19
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.43	12
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	1.29	8
INDUSTRIAL PRODUCTION MANAGERS	10	0.43	10
GENERAL MANAGERS AND TOP EXECUTIVES	110	4.74	17
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.43	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	110	4.74	N/A
ACCOUNTANTS AND AUDITORS	30	1.29	13
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.86	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.43	37
COMPUTER PROGRAMMERS	40	1.72	36
SALES AND RELATED OCCUPATIONS	250	10.78	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.86	23
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	120	5.17	12
CASHIERS	10	0.43	25
ALL OTHER SALES AND RELATED WORKERS	100	4.31	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	320	13.79	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.43	16
SECRETARIES	40	1.72	19
RECEPTIONIST AND INFORMATION CLERKS	10	0.43	N/A
TYPISTS	10	0.43	42
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	2.59	8
PAYROLL AND TIMEKEEPING CLERKS	10	0.43	N/A
BILLING, COST AND RATE CLERKS	20	0.86	18
GENERAL OFFICE CLERKS	70	3.02	13
BILLING, POSTING, CALCULATING MACH. OPERATORS	10	0.43	41
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.43	18
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.86	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.43	20
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	1.72	19
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.43	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.43	N/A
SERVICE OCCUPATIONS	70	3.02	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.43	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.43	N/A
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	20	0.86	46
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	30	1.29	11

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TABLE
OCCUPATIONS OF EMPLOYEES
BEVERAGES
SIC = 208
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,410	60.78	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.43	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	110	4.74	14
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	20	0.86	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	20	0.86	21
MACHINERY MAINTENANCE MECHANICS	50	2.16	15
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.86	19
AUTOMOTIVE MECHANICS	20	0.86	12
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	10	0.43	32
COIN AND VENDING MACHINE SERVICER & REPAIRERS	80	3.45	14
ALL OTHER CONSTRUCTION TRADES WORKERS	**	0.00	N/A
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	240	10.34	20
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.43	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	100	4.31	21
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	0.86	38
DRIVER/SALES WORKERS	350	15.09	11
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.43	32
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	150	6.47	8
MECHANIC AND REPAIRER HELPERS	10	0.43	26
MACHINE FEEDERS AND OFFBEARERS	20	0.86	43
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	20	0.86	31
HAND PACKERS AND PACKAGERS	30	1.29	42
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	90	3.88	N/A

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SIC 22

This major group includes establishments engaged in the preparation and manufacturing of yarn, thread, twine, and cordage into a finished fabric, also included are products and articles produced from yarn.. The 1983 employment level in textile mills is 21 percent lower than the 1980 employment level of 25,600 jobs. The textile mill industry has been severly crippled during the last decade by new automation and foreign competition. However, its 1983 employment level of 20,200 jobs indicates a slowdown of the average annual decline we have seen over the last 10 years.

PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

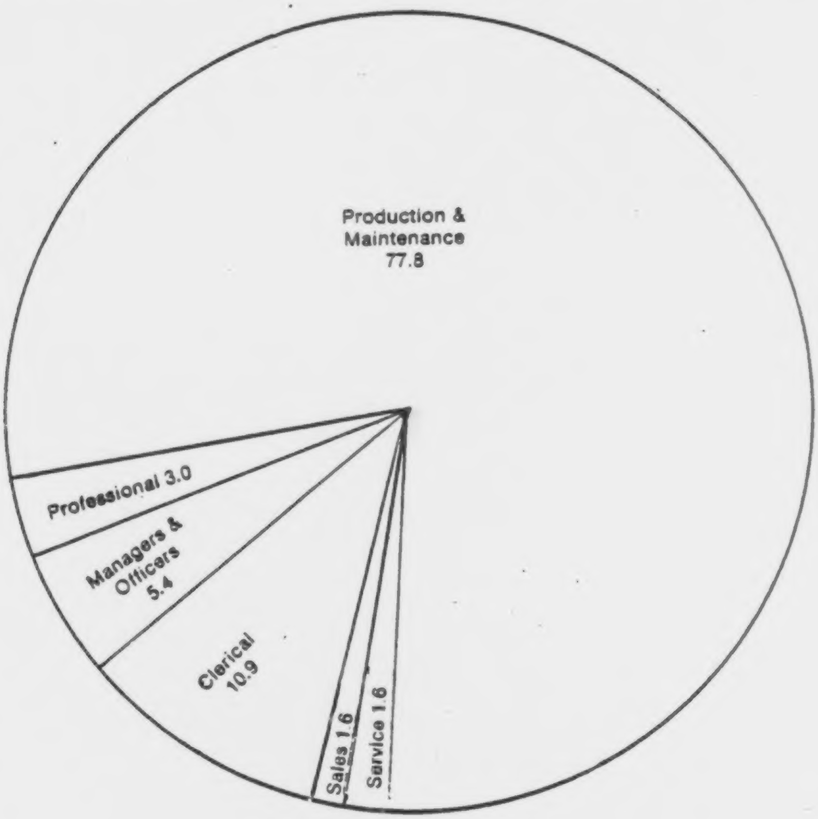
	22	223	224	225	226	228	229
TOTAL	100%	100%	100%	100%	100%	100%	100%
Managerial & Admin.	5.42	4.93	5.31	4.42	3.52	3.42	9.49
Prof. & Tech. Occs.	3.01	2.11	.88	2.06	2.28	1.37	6.12
Sales Occs.	1.58	2.11	1.77	1.18	.41	2.74	3.38
Clerical Occs.	10.85	8.45	7.96	12.98	9.32	8.90	15.82
Service Occs.	1.58	1.41	.88	.88	.83	1.37	2.95
Prod. & Maint. Occs.	77.76	81.69	83.19	78.47	83.64	82.88	62.45

Analysis of the Industry by Occupational Category shows Production and Maintenance Occupations continuing to dominate the industry with an increase of 4.1 percent since the 1980 survey (73.7 percent to 77.8 percent). Eight of the top ten ranked occupations are in this category.

Clerical occupations dropped from 14.4 percent of employment in 1980 to 10.9 percent in 1983, reflecting office automation trends.

TEXTILE MILL PRODUCTS (SIC 22)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Textile Machine Operators and Tenders	4,130
2.	Textile Bleaching and Dyeing, Machine Operators and Tenders	1,470
3.	Textile Machine Setters and Set-up Operators	970
4.	Supervisors, Production and Operating Workers	940
5.	Production Inspectors, Testers Graders, Sorters, Samplers and Weighers	820
6.	Cutting and Slicing Machine Operators and Tenders	820
7.	General Managers and Top Executives	680
8.	Sewing Machine Operators, Garment	660
9.	Machinery Maintenance, Mechanics, Textile Machines	570
10.	General Office Clerks	360

These 10 occupational catagories makes up 56.3% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
TEXTILE MILL PRODUCTS
SIC = 22
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	20,280	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,100	5.42	N/A
FINANCIAL MANAGERS	80	0.39	16
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	40	0.20	12
PURCHASING MANAGERS	20	0.10	12
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	40	0.20	12
ADMINISTRATIVE SERVICES MANAGERS	30	0.15	20
INDUSTRIAL PRODUCTION MANAGERS	120	0.59	11
GENERAL MANAGERS AND TOP EXECUTIVES	680	3.35	9
ALL OTHER MANAGERS AND ADMINISTRATORS	90	0.44	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	610	3.01	N/A
ACCOUNTANTS AND AUDITORS	100	0.49	12
BUDGET ANALYSTS	10	0.05	29
ALL OTHER FINANCIAL SPECIALISTS	10	0.05	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.10	16
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.10	18
COST ESTIMATORS	10	0.05	29
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.05	N/A
CHEMICAL ENGINEERS	50	0.25	29
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	40	0.20	18
SAFETY ENGINEERS, EXCEPT MINING	10	0.05	20
MECHANICAL ENGINEERS	50	0.25	23
ALL OTHER ENGINEERS	10	0.05	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	20	0.10	13
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	20	0.10	32
DRAFTERS	**	0.00	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.25	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	40	0.20	19
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	40	0.20	29
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	**	0.00	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	50	0.25	43
COMPUTER PROGRAMMERS	30	0.15	29
COMPUTER PROGRAMMER AIDES	20	0.10	19
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	**	0.00	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.05	22
DESIGNERS, EXCEPT INTERIOR DESIGNERS	20	0.10	10
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	**	0.00	N/A
SALES AND RELATED OCCUPATIONS	320	1.58	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	80	0.39	35
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	80	0.39	28
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	140	0.69	18
DEMONSTRATORS, PROMOTERS, AND MODELS	**	0.00	N/A
ALL OTHER SALES AND RELATED WORKERS	20	0.10	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
TEXTILE MILL PRODUCTS
SIC = 22
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	140	0.69	18
ALL OTHER SALES AND RELATED WORKERS	20	0.10	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,200	10.85	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	100	0.49	15
SECRETARIES	270	1.33	11
STENOGRAPHERS	10	0.05	17
RECEPTIONIST AND INFORMATION CLERKS	20	0.10	14
TYPISTS	50	0.25	13
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.05	29
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.10	19
FILE CLERKS	40	0.20	24
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	70	0.35	24
PROCUREMENT CLERKS	20	0.10	8
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	240	1.18	10
PAYROLL AND TIMEKEEPING CLERKS	50	0.25	14
BILLING, COST AND RATE CLERKS	110	0.54	9
GENERAL OFFICE CLERKS	360	1.78	29
BILLING, POSTING, CALCULATING MACH. OPERATORS	40	0.20	28
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.20	24
DATA ENTRY KEYERS, EXCEPT COMPOSING	50	0.25	17
SWITCHBOARD OPERATORS	30	0.15	8
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	150	0.74	13
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.05	38
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	120	0.59	22
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	350	1.73	13
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.10	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.10	N/A
SERVICE OCCUPATIONS	320	1.58	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.05	45
GUARDS AND WATCH GUARDS	100	0.49	18
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	150	0.74	9
ELEVATOR OPERATORS	10	0.05	18
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.05	N/A
ALL OTHER SERVICE WORKERS	40	0.20	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	15,770	77.76	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	40	0.20	18
SUPERVISORS-PRODUCTION & OPERATING WORKERS	940	4.64	13
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	20	0.10	22
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	50	0.25	43

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TABLE
OCCUPATIONS OF EMPLOYEES
TEXTILE MILL PRODUCTS
SIC = 22
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRECISION INSPECTORS, TESTERS, AND GRADERS	120	0.59	27
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	820	4.04	9
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	570	2.81	10
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	70	0.35	43
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	20	0.10	48
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.05	N/A
MILLWRIGHTS	20	0.10	29
MAINTENANCE REPAIRERS, GENERAL UTILITY	190	0.94	13
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.05	17
MENDERS-GARMENTS, LINENS, AND RELATED	40	0.20	13
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	40	0.20	N/A
CARPENTERS	50	0.25	15
ELECTRICIANS	90	0.44	14
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.05	27
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	40	0.20	18
MACHINISTS	40	0.20	21
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	30	0.15	5
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	10	0.05	25
PRESSERS, DELICATE FABRICS	10	0.05	N/A
PRECISION DYERS	80	0.39	22
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	70	0.35	N/A
PLAS MOLDING,CASTING MACH SETTERS,SET-UP OPER	80	0.39	48
SPEC MATERIALS PRINT MACH SETTER,SET-UP OPER	110	0.54	30
SCREEN PRINTING MACHINE SETTERS, SET-UP OPER	120	0.59	32
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	120	0.59	N/A
PRINTING PRESS MACHINE OPERATORS AND TENDERS	80	0.39	12
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	70	0.35	N/A
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	970	4.78	17
TEXTILE MACHINE OPERATORS AND TENDERS	4,130	20.36	7
EXTRUDING MACH OPER-TENDER,SYNTH,GLASS FIBERS	250	1.23	49
TEXTILE DRAW-OUT MACHINE OPERATORS & TENDERS	300	1.48	14
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	1,470	7.25	26
SEWING MACHINE OPERATORS, GARMENT	660	3.25	34
SEWING MACHINE OPERATORS, NON-GARMENT	100	0.49	39
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	70	0.35	30
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	40	0.20	6
BOILER OPERATORS AND TENDERS, LOW PRESSURE	80	0.39	9
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	80	0.39	49

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TABLE
OCCUPATIONS OF EMPLOYEES
TEXTILE MILL PRODUCTS
SIC = 22
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CUTTING, SLICING MACH OPERATORS AND TENDERS	820	4.04	44
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	140	0.69	40
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	80	0.39	40
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	100	0.49	21
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	140	0.69	30
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.10	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	340	1.68	N/A
SEWERS, HAND	80	0.39	12
CUTTERS AND TRIMMERS, HAND	50	0.25	48
PAINTING, COATING & DECORATING WORKERS- HAND	10	0.05	43
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	40	0.20	22
ALL OTHER HAND WORKERS	200	0.99	N/A
STATIONARY ENGINEERS	20	0.10	34
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.05	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	50	0.25	19
ALL OTHER MOTOR VEHICLE OPERATORS	50	0.25	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	20	0.10	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	190	0.94	15
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	40	0.20	N/A
MECHANIC AND REPAIRER HELPERS	20	0.10	27
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	10	0.05	N/A
MACHINE FEEDERS AND OFFBEARERS	260	1.28	29
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	330	1.63	15
HAND PACKERS AND PACKAGERS	310	1.53	26
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	320	1.58	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
BROAD WOVEN FABRIC MILLS, WOOL
SIC = 223
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	EMPLOYMENT PERCENT OF TOTAL	EMPLOYMENT RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,420	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	70	4.93	N/A
INDUSTRIAL PRODUCTION MANAGERS	10	0.70	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	40	2.82	12
ALL OTHER MANAGERS AND ADMINISTRATORS	20	1.41	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	30	2.11	N/A
ALL OTHER FINANCIAL SPECIALISTS	**	0.00	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.70	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	1.41	N/A
SALES AND RELATED OCCUPATIONS	30	2.11	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	20	1.41	23
ALL OTHER SALES AND RELATED WORKERS	10	0.70	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	120	8.45	N/A
SECRETARIES	20	1.41	24
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	10	0.70	25
PAYROLL AND TIMEKEEPING CLERKS	10	0.70	N/A
BILLING, COST AND RATE CLERKS	10	0.70	N/A
GENERAL OFFICE CLERKS	20	1.41	21
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	1.41	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.70	33
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	2.11	21
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.70	N/A
SERVICE OCCUPATIONS	20	1.41	N/A
GUARDS AND WATCH GUARDS	10	0.70	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.70	14
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,160	81.69	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	50	3.52	19
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	40	2.82	33
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	60	4.23	14
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	1.41	14
MENDERS-GARMENTS, LINENS, AND RELATED	10	0.70	25
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.70	25
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.70	N/A
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	10	0.70	N/A
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	90	6.34	5
TEXTILE MACHINE OPERATORS AND TENDERS	560	39.44	4
TEXTILE DRAW-OUT MACHINE OPERATORS & TENDERS	30	2.11	20

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TABLE
OCCUPATIONS OF EMPLOYEES
BROAD WOVEN FABRIC MILLS, WOOL
SIC = 223
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	70	4.93	31
LAUNDRY,DRYCLEANING MACH OPER,TEND,EXC PRESS	10	0.70	N/A
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	10	0.70	16
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.70	N/A
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.70	50
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	10	0.70	16
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	1.41	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	30	2.11	N/A
SEWERS, HAND	50	3.52	17
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.70	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.70	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	10	0.70	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	2.82	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
NARROW FABRIC MILLS
SIC = 224
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,130	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	60	5.31	N/A
INDUSTRIAL PRODUCTION MANAGERS	10	0.88	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	40	3.54	7
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.88	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	10	0.88	N/A
SALES AND RELATED OCCUPATIONS	20	1.77	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	10	0.88	N/A
ALL OTHER SALES AND RELATED WORKERS	10	0.88	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	90	7.96	N/A
SECRETARIES	20	1.77	8
TYPISTS	10	0.88	20
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	20	1.77	2
GENERAL OFFICE CLERKS	10	0.88	25
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.88	14
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	1.77	6
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.88	N/A
SERVICE OCCUPATIONS	10	0.88	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.88	11
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	940	83.19	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	50	4.42	5
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	1.77	25
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	40	3.54	21
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	40	3.54	6
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.88	19
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	10	0.88	N/A
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	140	12.39	15
TEXTILE MACHINE OPERATORS AND TENDERS	450	39.82	6
TEXTILE DRAW-OUT MACHINE OPERATORS & TENDERS	20	1.77	45
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	40	3.54	14
ALL OTHER MACHINE OPERATORS AND TENDERS	30	2.65	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	40	3.54	22
ALL OTHER HAND WORKERS	10	0.88	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	20	1.77	25
HAND PACKERS AND PACKAGERS	20	1.77	41

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TABLE
OCCUPATIONS OF EMPLOYEES
KNITTING MILLS
SIC = 225
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,390	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	150	4.42	N/A
FINANCIAL MANAGERS	10	0.29	40
INDUSTRIAL PRODUCTION MANAGERS	40	1.18	3
GENERAL MANAGERS AND TOP EXECUTIVES	80	2.36	17
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.59	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	70	2.06	N/A
ACCOUNTANTS AND AUDITORS	20	0.59	24
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.29	17
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.29	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.29	N/A
ALL OTHER ENGINEERS	10	0.29	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.29	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.29	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.29	20
SALES AND RELATED OCCUPATIONS	40	1.18	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	0.88	34
ALL OTHER SALES AND RELATED WORKERS	10	0.29	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	440	12.98	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	40	1.18	6
SECRETARIES	20	0.59	20
TYPISTS	30	0.88	N/A
FILE CLERKS	10	0.29	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	0.59	16
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	1.77	12
PAYROLL AND TIMEKEEPING CLERKS	10	0.29	44
BILLING, COST AND RATE CLERKS	10	0.29	22
GENERAL OFFICE CLERKS	110	3.24	25
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.29	35
ALL OTHER OFFICE MACHINE OPERATORS	10	0.29	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.29	34
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.29	45
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	2.06	29
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.29	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.29	N/A
SERVICE OCCUPATIONS	30	0.88	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.29	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.59	27

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TABLE
OCCUPATIONS OF EMPLOYEES
KNITTING MILLS
SIC = 225
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,660	78.47	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	70	2.06	31
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.29	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	200	5.90	18
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	80	2.36	24
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	30	0.88	N/A
MILLWRIGHTS	10	0.29	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.59	50
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.29	N/A
MENDERS-GARMENTS, LINENS, AND RELATED	30	0.88	17
ELECTRICIANS	10	0.29	17
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.29	53
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.29	N/A
MACHINISTS	10	0.29	28
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	30	0.88	N/A
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	10	0.29	25
PRESSERS, DELICATE FABRICS	10	0.29	N/A
PRECISION DYERS	40	1.18	11
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	50	1.47	N/A
SPEC MATERIALS PRINT MACH SETTER,SET-UP OPER	10	0.29	N/A
SCREEN PRINTING MACHINE SETTERS, SET-UP OPER	10	0.29	N/A
PRINTING PRESS MACHINE OPERATORS AND TENDERS	70	2.06	N/A
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	90	2.65	13
TEXTILE MACHINE OPERATORS AND TENDERS	660	19.47	13
TEXTILE DRAW-OUT MACHINE OPERATORS & TENDERS	40	1.18	N/A
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	130	3.83	18
SEWING MACHINE OPERATORS, GARMENT	400	11.80	27
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	60	1.77	36
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	10	0.29	N/A
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	10	0.29	N/A
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	30	0.88	44
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.59	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	50	1.47	N/A
SEWERS, HAND	10	0.29	27
PORTABLE MACHINE CUTTERS	10	0.29	44
ALL OTHER HAND WORKERS	70	2.06	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.29	17
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.29	28

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TABLE
OCCUPATIONS OF EMPLOYEES
KNITTING MILLS
SIC = 225
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	0.88	5
MECHANIC AND REPAIRER HELPERS	10	0.29	N/A
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	10	0.29	N/A
MACHINE FEEDERS AND OFFBEARERS	70	2.06	49
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	50	1.47	19
HAND PACKERS AND PACKAGERS	150	4.42	49
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	1.18	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
DYEING AND FINISHING TEXTILES
SIC = 226
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,830	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	170	3.52	N/A
FINANCIAL MANAGERS	30	0.62	34
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.21	35
GENERAL MANAGERS AND TOP EXECUTIVES	90	1.86	28
ALL OTHER MANAGERS AND ADMINISTRATORS	50	1.04	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	110	2.28	N/A
ACCOUNTANTS AND AUDITORS	20	0.41	8
ALL OTHER FINANCIAL SPECIALISTS	**	0.00	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.21	N/A
ALL OTHER ENGINEERS	40	0.83	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.21	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.21	25
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	20	0.41	N/A
SALES AND RELATED OCCUPATIONS	20	0.41	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	20	0.41	28
ALL OTHER SALES AND RELATED WORKERS	10	0.21	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	450	9.32	N/A
SECRETARIES	30	0.62	15
FILE CLERKS	30	0.62	30
PROCUREMENT CLERKS	10	0.21	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	0.62	15
PAYROLL AND TIMEKEEPING CLERKS	20	0.41	31
BILLING, COST AND RATE CLERKS	20	0.41	28
GENERAL OFFICE CLERKS	50	1.04	28
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.62	33
ALL OTHER OFFICE MACHINE OPERATORS	30	0.62	N/A
SWITCHBOARD OPERATORS	10	0.21	8
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	40	0.83	31
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	30	0.62	34
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	0.83	18
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.41	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	70	1.45	N/A
SERVICE OCCUPATIONS	40	0.83	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	10	0.21	N/A
GUARDS AND WATCH GUARDS	20	0.41	17
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.21	30

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
DYEING AND FINISHING TEXTILES
SIC = 226
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,040	83.64	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.21	10
SUPERVISORS-PRODUCTION & OPERATING WORKERS	240	4.97	7
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.21	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	280	5.80	13
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	130	2.69	9
ALL OTHER MACHINERY MAINTENANCE MECHANICS	20	0.41	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.83	31
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.21	N/A
CARPENTERS	20	0.41	16
ELECTRICIANS	30	0.62	21
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.41	31
ALL OTHER PRECISION METAL WORKERS	10	0.21	N/A
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	30	0.62	N/A
ALL OTHER PRECISION WORKERS	10	0.21	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	220	4.55	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	70	1.45	N/A
TEXTILE MACHINE OPERATORS AND TENDERS	70	1.45	32
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	1,140	23.60	33
BOILER OPERATORS AND TENDERS, LOW PRESSURE	50	1.04	9
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	20	0.41	27
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	40	0.83	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	1,130	23.40	N/A
ALL OTHER HAND WORKERS	40	0.83	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	20	0.41	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.21	35
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.41	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	90	1.86	23
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.41	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	130	2.69	N/A
HAND PACKERS AND PACKAGERS	80	1.66	34
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	0.83	24

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
YARN AND THREAD MILLS
SIC = 228
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,460	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	50	3.42	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	40	2.74	8
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.68	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	20	1.37	N/A
ACCOUNTANTS AND AUDITORS	10	0.68	N/A
SALES AND RELATED OCCUPATIONS	40	2.74	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	20	1.37	N/A
ALL OTHER SALES AND RELATED WORKERS	10	0.68	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	130	8.90	N/A
SECRETARIES	20	1.37	7
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	10	0.68	12
GENERAL OFFICE CLERKS	30	2.05	4
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.68	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.68	22
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	2.74	11
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.68	N/A
SERVICE OCCUPATIONS	20	1.37	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	**	0.00	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.68	17
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,210	82.88	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	90	6.16	11
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	20	1.37	33
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	60	4.11	11
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	1.37	12
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.68	N/A
TEXTILE DRAW-OUT MACHINE OPERATORS & TENDERS	70	4.79	34
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	10	0.68	8
SEWING MACHINE OPERATORS, GARMENT	10	0.68	29
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	20	1.37	N/A
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.68	27
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.68	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	780	53.42	N/A
SEWERS, HAND	10	0.68	29
CUTTERS AND TRIMMERS, HAND	10	0.68	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	50	3.42	20
HAND PACKERS AND PACKAGERS	20	1.37	6
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.68	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS TEXTILE GOODS
SIC = 229
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,740	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	450	9.49	N/A
FINANCIAL MANAGERS	20	0.42	9
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.21	10
PURCHASING MANAGERS	10	0.21	16
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.42	16
ADMINISTRATIVE SERVICES MANAGERS	10	0.21	27
INDUSTRIAL PRODUCTION MANAGERS	40	0.84	25
GENERAL MANAGERS AND TOP EXECUTIVES	290	6.12	14
ALL OTHER MANAGERS AND ADMINISTRATORS	50	1.05	36
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	290	6.12	N/A
ACCOUNTANTS AND AUDITORS	40	0.84	24
ALL OTHER FINANCIAL SPECIALISTS	10	0.21	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.21	26
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.21	N/A
CHEMICAL ENGINEERS	40	0.84	31
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.21	12
MECHANICAL ENGINEERS	20	0.42	26
ALL OTHER ENGINEERS	10	0.21	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	1.05	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	20	0.42	28
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	20	0.42	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.21	17
COMPUTER PROGRAMMERS	10	0.21	28
COMPUTER PROGRAMMER AIDES	10	0.21	28
SALES AND RELATED OCCUPATIONS	160	3.38	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	70	1.48	39
SALES REPS~~, SCIENTIFIC~~ PROD & SVCS-EXC RETAIL	50	1.05	36
ALL OTHER SALES AND RELATED WORKERS	40	0.84	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	750	15.82	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.42	28
SECRETARIES	130	2.74	21
RECEPTIONIST AND INFORMATION CLERKS	10	0.21	24
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.21	29
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.21	24
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	30	0.63	44
PROCUREMENT CLERKS	10	0.21	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	90	1.90	21

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TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS TEXTILE GOODS
SIC = 229
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PAYROLL AND TIMEKEEPING CLERKS	10	0.21	16
BILLING, COST AND RATE CLERKS	60	1.27	13
GENERAL OFFICE CLERKS	130	2.74	77
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.21	28
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.42	24
ALL OTHER OFFICE MACHINE OPERATORS	**	0.00	N/A
SWITCHBOARD OPERATORS	10	0.21	17
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	60	1.27	19
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	100	2.11	25
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	50	1.05	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.42	N/A
SERVICE OCCUPATIONS	140	2.95	N/A
GUARDS AND WATCH GUARDS	40	0.84	34
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	1.05	16
ELEVATOR OPERATORS	10	0.21	28
ALL OTHER SERVICE WORKERS	40	0.84	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,960	62.45	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.42	22
SUPERVISORS-PRODUCTION & OPERATING WORKERS	330	6.96	35
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.21	37
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	50	1.05	46
PRECISION INSPECTORS, TESTERS, AND GRADERS	60	1.27	32
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	150	3.16	26
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	140	2.95	23
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.21	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	70	1.48	29
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.21	N/A
CARPENTERS	10	0.21	24
ELECTRICIANS	30	0.63	16
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	10	0.21	12
ALL OTHER CONSTRUCTION TRADES WORKERS	**	0.00	N/A
MACHINISTS	10	0.21	35
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	10	0.21	N/A
PLAS MOLDING,CASTING MACH SETTERS,SET-UP OPER	80	1.69	48
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	80	1.69	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	20	0.42	N/A
TEXTILE MACHINE OPERATORS AND TENDERS	590	12.45	22

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS TEXTILE GOODS
SIC = 229
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	10	0.21	49
BOILER OPERATORS AND TENDERS, LOW PRESSURE	20	0.42	25
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	100	2.11	47
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	60	1.27	33
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	120	2.53	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	420	8.86	N/A
ALL OTHER HAND WORKERS	110	2.32	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.21	22
ALL OTHER MOTOR VEHICLE OPERATORS	40	0.84	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	50	1.05	31
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.42	N/A
MACHINE FEEDERS AND OFFBEARERS	150	3.16	45
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	60	1.27	33
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	130	2.74	N/A

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SIC 23

This major group, known as the cutting-up and needle trades, includes establishments producing clothing and fabricating products by cutting and sewing purchased woven or knit textile fabrics and related material such as leather, rubberized fabrics, plastics and furs.

Employment in the apparel industry has been on a gradual but steadily declining trend over the 1980-1983 period. In 1980, employment in the apparel industry stood at 39,800 but fell to 35,900 in 1983, a net decline of 3,900 jobs or -9.8 percent over this time frame. This three year decline continues the longer term decline that has been occurring. In 1970, the Massachusetts apparel industry had nearly 50,000 jobs but that number fell to 39,800 in 1980, a net decline of 10,200 jobs or -20.4 percent. Through 1983, the drop in jobs from 1970 was 14,100 or -28.2 percent. Foreign competition, automation, and the cost of labor have been cited as some of the contributing factors for this industry's employment decline.

PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

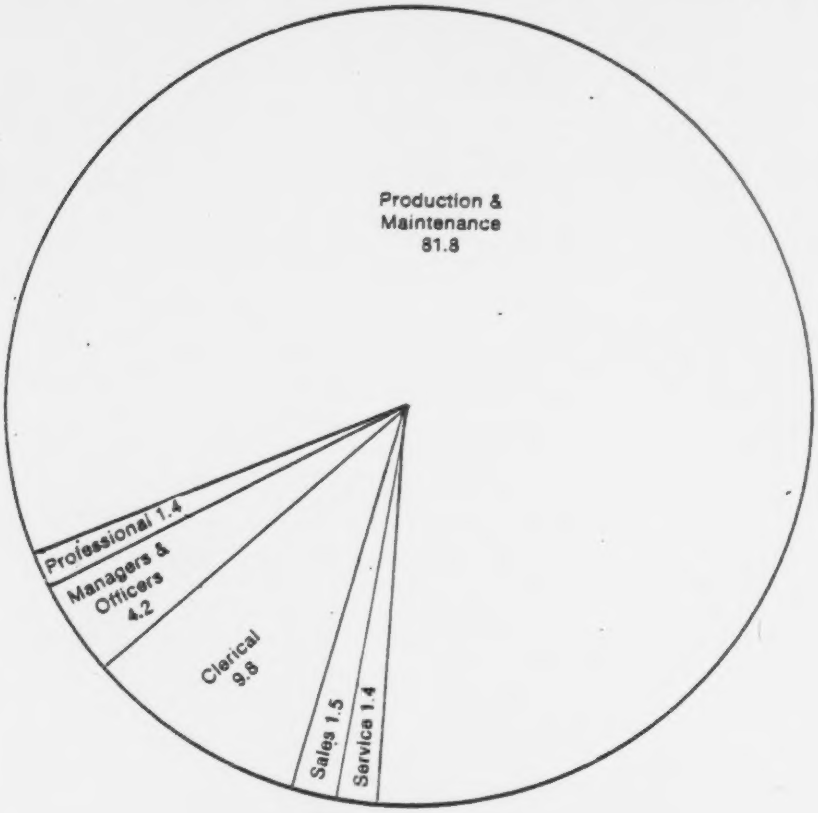
	23	231	233	234	238	239
.TOTAL	100%	100%	100%	100%	100%	100%
Managerial & Administrative	4.15	2.40	3.43	3.46	5.49	6.36
Profess.,Paraprofess., Tech.	1.35	1.31	1.52	1.30	2.75	1.24
Sales and Related	1.54	1.09	1.52	0.87	3.30	1.11
Clerical and Admin. Support	9.77	6.55	8.11	8.66	15.38	13.28
Service	0.14	0.87	1.58	0.87	2.75	1.38
Prod., Construction & Maint.	81.81	87.77	83.78	85.71	70.88	76.63

The occupations within the apparel industry are largely concentrated within the Production, Construction, and Maintenance occupations (over 80 percent of all occupations). This high level of production, construction and maintenance workers exists throughout all of the defined apparel industries. Nearly 50 percent of the production, construction and maintenance workers are sewing machine operators.

In contrast with the large percentages of professional, paraprofessional and technical workers in the state's growing industries, these occupations make up less than two percent of the apparel industry's employment level.

APPAREL AND OTHER FINISHED PRODUCTS (SIC 23)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Sewing Machine Operators, Garment	15,090
2.	Sewing Machine Operators, Nongarment	2,500
3.	All Other Helpers, Laborers and Material Movers, Hand	1,350
4.	Pressing Machine Operators and Tenders - Textile, Garment	1,300
5.	All Other Hand Workers	1,140
6.	General Management and Top Executives	1,080
7.	Cutters and Trimmers, Hand	900
8.	Freight, Stock, and Material Movers, Hand	800
9.	Hand Packers and Packagers	760
10.	Traffic, Shipping and Receiving Clerks	740

These 10 Occupational categories make up 72.0% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
APPAREL & OTHER FINISHED PRODUCTS
SIC = 23
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	35,630	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,480	4.15	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.06	17
PURCHASING MANAGERS	30	0.08	21
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	50	0.14	25
ADMINISTRATIVE SERVICES MANAGERS	30	0.08	35
INDUSTRIAL PRODUCTION MANAGERS	120	0.34	33
GENERAL MANAGERS AND TOP EXECUTIVES	1,080	3.03	15
ALL OTHER MANAGERS AND ADMINISTRATORS	150	0.42	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	480	1.35	N/A
ACCOUNTANTS AND AUDITORS	30	0.08	13
BUDGET ANALYSTS	**	0.00	N/A
ALL OTHER FINANCIAL SPECIALISTS	10	0.03	13
ALL OTHER MANAGEMENT SUPPORT WORKERS	40	0.11	18
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	20	0.06	19
MECHANICAL ENGINEERS	10	0.03	20
DRAFTERS	10	0.03	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.03	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.03	N/A
COMPUTER PROGRAMMER AIDES	10	0.03	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	330	0.93	N/A
SALES AND RELATED OCCUPATIONS	550	1.54	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	30	0.08	27
ALL OTHER SALES AND RELATED WORKERS	520	1.46	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,480	9.77	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	0.20	15
SECRETARIES	320	0.90	20
STENOGRAPHERS	10	0.03	17
TYPISTS	40	0.11	13
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.03	25
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.03	23
STATISTICAL CLERKS	10	0.03	29
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	600	1.68	28
PAYROLL AND TIMEKEEPING CLERKS	200	0.56	17
BILLING, COST AND RATE CLERKS	60	0.17	21
GENERAL OFFICE CLERKS	580	1.63	21
DATA ENTRY KEYERS, EXCEPT COMPOSING	70	0.20	28
ALL OTHER OFFICE MACHINE OPERATORS	90	0.25	N/A

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# TABLE
# OCCUPATIONS OF EMPLOYEES
# APPAREL & OTHER FINISHED PRODUCTS
SIC = 23
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	20	0.06	18
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	260	0.73	28
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	740	2.08	21
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	70	0.20	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	320	0.90	N/A
SERVICE OCCUPATIONS	50	0.14	N/A
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	10	0.03	18
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	330	0.93	15
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	150	0.42	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	29,150	81.81	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	30	0.08	27
SUPERVISORS-PRODUCTION & OPERATING WORKERS	610	1.71	17
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	720	2.02	25
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	10	0.03	20
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	200	0.56	15
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.03	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	0.17	29
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	190	0.53	N/A
CARPENTERS	30	0.08	23
MACHINISTS	10	0.03	N/A
ALL OTHER PRECISION METAL WORKERS	10	0.03	N/A
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	570	1.60	23
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	280	0.79	N/A
ALL OTHER PRECISION WORKERS	10	0.03	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	10	0.03	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.03	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	20	0.06	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	10	0.03	N/A
TEXTILE MACHINE OPERATORS AND TENDERS	250	0.70	15
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	10	0.03	N/A
SEWING MACHINE OPERATORS, GARMENT	15,090	42.35	9
SEWING MACHINE OPERATORS, NON-GARMENT	2,500	7.02	34
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	1,300	3.65	22
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.03	14
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	30	0.08	21
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	10	0.03	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	60	0.17	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	590	1.66	N/A
PRESSERS, HAND	610	1.71	36
CUTTERS AND TRIMMERS, HAND	900	2.53	22

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1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
APPAREL & OTHER FINISHED PRODUCTS
SIC = 23
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PORTABLE MACHINE CUTTERS	520	1.46	20
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	200	0.56	29
ALL OTHER HAND WORKERS	110	0.31	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	140	0.39	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.06	18
ALL OTHER MOTOR VEHICLE OPERATORS	30	0.08	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.06	30
CONVEYOR OPERATORS AND TENDERS	20	0.06	35
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	800	2.25	31
HAND PACKERS AND PACKAGERS	760	2.13	18
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,350	3.79	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEN'S, YOUTHS' & BOYS' SUITS, & COATS
SIC = 231
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,580	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	110	2.40	N/A
FINANCIAL MANAGERS	10	0.22	11
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.22	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.22	N/A
INDUSTRIAL PRODUCTION MANAGERS	30	0.66	29
GENERAL MANAGERS AND TOP EXECUTIVES	50	1.09	16
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.22	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	60	1.31	N/A
ACCOUNTANTS AND AUDITORS	10	0.22	29
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.44	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.22	N/A
COMPUTER PROGRAMMERS	10	0.22	16
ALL OTHER MATHEMATICAL SCIENTISTS	**	0.00	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.22	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.22	20
SALES AND RELATED OCCUPATIONS	50	1.09	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	**	0.00	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	0.66	3
ALL OTHER SALES AND RELATED WORKERS	20	0.44	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	300	6.55	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.22	12
SECRETARIES	20	0.44	16
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	40	0.87	5
PROCUREMENT CLERKS	10	0.22	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	20	0.44	11
PAYROLL AND TIMEKEEPING CLERKS	30	0.66	9
BILLING, COST AND RATE CLERKS	10	0.22	20
GENERAL OFFICE CLERKS	30	0.66	6
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.22	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.44	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	0.44	N/A
MARKING CLERKS	10	0.22	18
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	0.44	24
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	0.87	13
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	30	0.66	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.44	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEN'S, YOUTHS' & BOYS' SUITS, & COATS
SIC = 231
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	40	0.87	N/A
GUARDS AND WATCH GUARDS	10	0.22	32
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	30	0.66	6
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,020	87.77	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	90	1.97	8
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.22	20
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.22	49
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	80	1.75	9
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	20	0.44	10
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.22	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.22	25
MENDERS-GARMENTS, LINENS, AND RELATED	20	0.44	38
CARPENTERS	10	0.22	N/A
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	80	1.75	15
CUSTOM TAILORS AND SEWERS	20	0.44	34
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	20	0.44	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	10	0.22	N/A
SEWING MACHINE OPERATORS, GARMENT	2,560	55.90	5
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	320	6.99	6
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.22	15
ALL OTHER MACHINE OPERATORS AND TENDERS	40	0.87	N/A
PRESSERS, HAND	100	2.18	15
SEWERS, HAND	90	1.97	34
CUTTERS AND TRIMMERS, HAND	140	3.06	9
PORTABLE MACHINE CUTTERS	60	1.31	26
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	60	1.31	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	**	0.00	N/A
CONVEYOR OPERATORS AND TENDERS	10	0.22	47
MACHINE FEEDERS AND OFFBEARERS	20	0.44	35
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	40	0.87	40
HAND PACKERS AND PACKAGERS	30	0.66	34
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	150	3.28	46

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WOMEN'S, MISSES' & JUNIORS' OUTERWEAR
SIC = 233
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	15,170	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	520	3.43	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	450	2.97	33
ALL OTHER MANAGERS AND ADMINISTRATORS	80	0.53	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	230	1.52	N/A
ALL OTHER FINANCIAL SPECIALISTS	10	0.07	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.20	N/A
ALL OTHER ENGINEERS	10	0.07	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.07	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.07	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	70	0.46	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	100	0.66	N/A
SALES AND RELATED OCCUPATIONS	230	1.52	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	50	0.33	N/A
ALL OTHER SALES AND RELATED WORKERS	180	1.19	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,230	8.11	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	30	0.20	32
ALL OTHER SECRETARIES	110	0.73	N/A
TYPISTS	10	0.07	20
PROCUREMENT CLERKS	10	0.07	28
ALL OTHER OFFICE MACHINE OPERATORS	40	0.26	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	10	0.07	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	440	2.90	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	600	3.96	N/A
SERVICE OCCUPATIONS	240	1.58	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	60	0.40	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.07	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	170	1.12	29
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	12,710	83.78	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	250	1.65	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	260	1.71	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	60	0.40	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.07	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.07	N/A
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	430	2.83	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.13	N/A
SEWING MACHINE OPERATORS, GARMENT	8,570	56.49	15
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.13	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	1,120	7.38	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WOMEN'S, MISSES' & JUNIORS' OUTERWEAR
SIC = 233
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER HAND WORKERS	1,230	8.11	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	140	0.92	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.07	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	410	2.70	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	170	1.12	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WOMEN'S AND CHILDREN'S UNDERGARMENTS
SIC = 234
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,310	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	80	3.46	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	30	1.30	16
ALL OTHER MANAGERS AND ADMINISTRATORS	40	1.73	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	30	1.30	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.43	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.43	47
SALES AND RELATED OCCUPATIONS	20	0.87	N/A
ALL OTHER SALES AND RELATED WORKERS	20	0.87	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	200	8.66	N/A
SECRETARIES	10	0.43	34
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	1.30	23
PAYROLL AND TIMEKEEPING CLERKS	20	0.87	13
GENERAL OFFICE CLERKS	30	1.30	24
ALL OTHER OFFICE MACHINE OPERATORS	10	0.43	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.43	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	0.87	40
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	1.73	15
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	1.73	N/A
SERVICE OCCUPATIONS	20	0.87	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.87	21
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,980	85.71	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	20	0.87	28
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	20	0.87	15
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.43	43
MENDERS-GARMENTS, LINENS, AND RELATED	10	0.43	37
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	40	1.73	20
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	10	0.43	N/A
SEWING MACHINE OPERATORS, GARMENT	1,340	58.01	7
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	10	0.43	43
ALL OTHER MACHINE OPERATORS AND TENDERS	20	0.87	N/A
CUTTERS AND TRIMMERS, HAND	80	3.46	30
PORTABLE MACHINE CUTTERS	50	2.16	15
ALL OTHER HAND WORKERS	50	2.16	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	40	1.73	34
HAND PACKERS AND PACKAGERS	60	2.60	28
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	120	5.19	29

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TABLE
OCCUPATIONS OF EMPLOYEES
MISC. APPAREL AND ACCESSORIES
SIC = 238
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,820	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	100	5.49	N/A
FINANCIAL MANAGERS	10	0.55	N/A
PURCHASING MANAGERS	10	0.55	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.55	8
GENERAL MANAGERS AND TOP EXECUTIVES	60	3.30	6
ALL OTHER MANAGERS AND ADMINISTRATORS	20	1.10	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	50	2.75	N/A
ALL OTHER FINANCIAL SPECIALISTS	10	0.55	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	1.10	N/A
ALL OTHER ENGINEERS	**	0.00	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.55	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.55	7
SALES AND RELATED OCCUPATIONS	60	3.30	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.55	11
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	40	2.20	14
ALL OTHER SALES AND RELATED WORKERS	10	0.55	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	280	15.38	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.55	N/A
SECRETARIES	20	1.10	14
TYPISTS	10	0.55	20
FILE CLERKS	10	0.55	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	2.75	18
PAYROLL AND TIMEKEEPING CLERKS	20	1.10	7
BILLING, COST AND RATE CLERKS	10	0.55	N/A
GENERAL OFFICE CLERKS	40	2.20	10
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.55	20
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.55	20
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	60	3.30	16
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	1.65	6
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.55	N/A
SERVICE OCCUPATIONS	50	2.75	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	30	1.65	13
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	1.10	8
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,290	70.88	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	60	3.30	9
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	60	3.30	26
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	20	1.10	9
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	20	1.10	17

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. APPAREL AND ACCESSORIES
SIC = 238
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CUSTOM TAILORS AND SEWERS	10	0.55	24
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	30	1.65	14
TEXTILE MACHINE OPERATORS AND TENDERS	60	3.30	29
SEWING MACHINE OPERATORS, GARMENT	530	29.12	9
SEWING MACHINE OPERATORS, NON-GARMENT	100	5.49	21
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	80	4.40	12
CUTTING, SLICING MACH OPERATORS AND TENDERS	20	1.10	32
PRESSERS, HAND	40	2.20	15
CUTTERS AND TRIMMERS, HAND	80	4.40	12
PORTABLE MACHINE CUTTERS	30	1.65	9
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	10	0.55	22
ALL OTHER HAND WORKERS	10	0.55	20
MACHINE FEEDERS AND OFFBEARERS	20	1.10	33
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.55	13
HAND PACKERS AND PACKAGERS	70	3.85	18
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	30	1.65	24

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS FABRICATED TEXTILE PRODUCTS
SIC = 239
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,230	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	460	6.36	N/A
FINANCIAL MANAGERS	30	0.41	20
PURCHASING MANAGERS	10	0.14	24
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.14	24
ADMINISTRATIVE SERVICES MANAGERS	10	0.14	32
INDUSTRIAL PRODUCTION MANAGERS	20	0.28	16
GENERAL MANAGERS AND TOP EXECUTIVES	350	4.84	12
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.41	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	90	1.24	N/A
ALL OTHER FINANCIAL SPECIALISTS	**	0.00	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.14	22
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.14	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.14	27
MECHANICAL ENGINEERS	10	0.14	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.14	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.14	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.14	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	30	0.41	N/A
SALES AND RELATED OCCUPATIONS	80	1.11	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.14	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	10	0.14	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	0.41	17
ALL OTHER SALES AND RELATED WORKERS	30	0.41	27
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	960	13.28	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.28	16
SECRETARIES	110	1.52	11
TYPISTS	20	0.28	18
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.14	17
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	0.28	10
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	110	1.52	10
PAYROLL AND TIMEKEEPING CLERKS	40	0.55	9
BILLING, COST AND RATE CLERKS	10	0.14	31
GENERAL OFFICE CLERKS	260	3.60	19
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.28	29
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.41	21
ALL OTHER OFFICE MACHINE OPERATORS	10	0.14	N/A
SWITCHBOARD OPERATORS	10	0.14	20
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	30	0.41	7
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.14	N/A

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N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# MISCELLANEOUS FABRICATED TEXTILE PRODUCTS
SIC = 239
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MARKING CLERKS	10	0.14	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	30	0.41	18
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	190	2.63	9
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	0.55	N/A
SERVICE OCCUPATIONS	100	1.38	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	10	0.14	N/A
GUARDS AND WATCH GUARDS	20	0.28	19
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	10	0.14	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	60	0.83	15
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.14	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,540	76.63	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	160	2.21	11
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	30	0.41	34
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	20	0.28	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.14	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	160	2.21	15
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	70	0.97	9
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	40	0.55	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	40	0.55	N/A
CARPENTERS	20	0.28	21
MACHINISTS	10	0.14	N/A
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	60	0.83	34
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	10	0.14	N/A
ALL OTHER PRECISION WORKERS	10	0.14	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	10	0.14	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.14	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	10	0.14	N/A
PRINTING PRESS MACHINE OPERATORS AND TENDERS	10	0.14	N/A
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	20	0.28	N/A
TEXTILE MACHINE OPERATORS AND TENDERS	130	1.80	10
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	10	0.14	N/A
SEWING MACHINE OPERATORS, GARMENT	480	6.64	17
SEWING MACHINE OPERATORS, NON-GARMENT	1,820	25.17	12
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	20	0.28	28
CUTTING, SLICING MACH OPERATORS AND TENDERS	30	0.41	28
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	10	0.14	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	400	5.53	N/A
PRESSERS, HAND	20	0.28	35

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# MISCELLANEOUS FABRICATED TEXTILE PRODUCTS
SIC = 239
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CUTTERS AND TRIMMERS, HAND	150	2.07	23
PORTABLE MACHINE CUTTERS	90	1.24	24
ALL OTHER HAND WORKERS	330	4.56	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.14	20
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.14	20
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.14	13
CONVEYOR OPERATORS AND TENDERS	10	0.14	35
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	290	4.01	15
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	50	0.69	N/A
HAND PACKERS AND PACKAGERS	350	4.84	15
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	620	8.58	29

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** - Employment less than 10
N/A - Relative Error Not Available

SIC 24

This major group includes logging camps, sawmills, lath mills, shingle mills, planing mills, plywood mills, veneer mills and establishments engaged in manufacturing finished articles made entirely or mainly of wood or wood substitutes (excluding furniture, musical instruments, toys).

The 1983 employment level in this industry has fallen 7 percent since the 1980 survey.

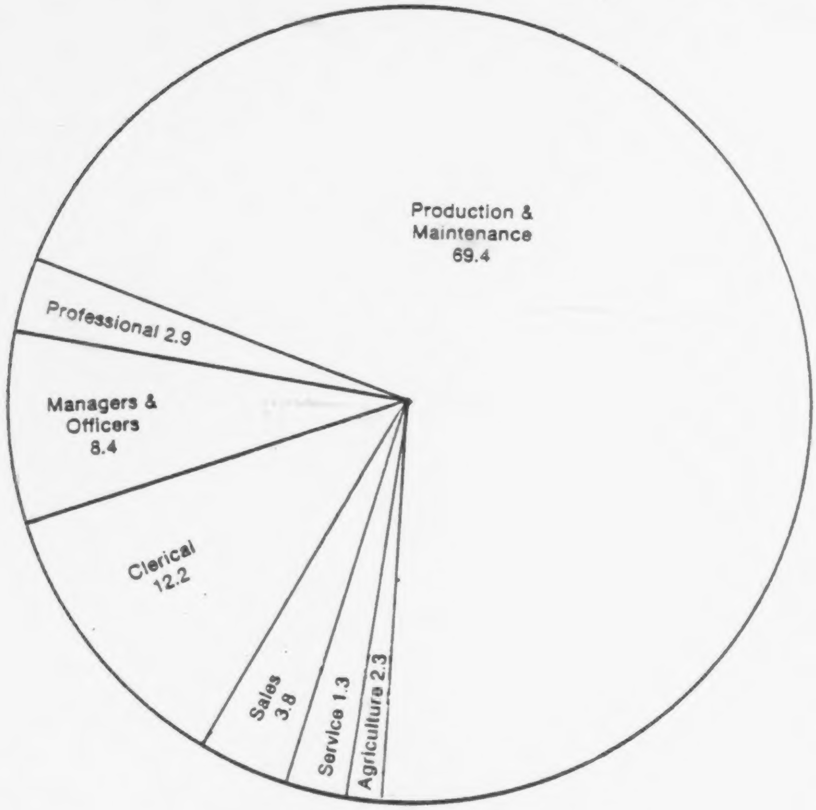
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	24	243	249
TOTAL	100%	100%	100%
Managerial & Admin.	8.39	8.84	8.08
Prof., & Tech., Occs.	2.94	2.04	3.54
Sales Occs.	3.77	6.12	2.53
Clerical Occs.	12.16	11.56	13.13
Service Occs.	1.26	1.36	1.52
Agricultural Occs.	2.31	--	--
Prod. & Maint. Occ.	69.39	70.07	70.71

Production and Maintenance Occupations, with 69 percent of the total employment, dominate the industry. Within this category, various machine operators and tenders represent one third of the workforce with cabinetmakers, and bench carpenters accounting for another 14 percent of the employment.

LUMBER AND WOOD PRODUCTS (SIC 24)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Cabinetmakers and Bench Carpenters	470
2.	General Managers and Top Executives	330
3.	Woodworking Machine Operators, and Tenders except Sawing	280
4.	Assemblers and Fabricators except Machine, Electrical, Electronic, and Precision	250
5.	Wood Machinists	230
6.	Supervisors, Production and Operating Workers	170
7.	Machine Feeders and Offbearers	170
8.	Sawing Machine Operators and Tenders	160
9.	Secretaries	140
10.	Carpenters	140

These 10 occupational categories make up 49.1% of total industry employment.

# TABLE
# OCCUPATIONS OF EMPLOYEES
# LUMBER AND WOOD PRODUCTS
SIC = 24
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,770	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	400	8.39	N/A
PURCHASING MANAGERS	0	0.00	25
GENERAL MANAGERS AND TOP EXECUTIVES	330	6.92	4
ALL OTHER MANAGERS AND ADMINISTRATORS	70	1.47	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	140	2.94	N/A
ACCOUNTANTS AND AUDITORS	30	0.63	11
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.42	19
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.21	20
COST ESTIMATORS	10	0.21	22
MECHANICAL ENGINEERS	10	0.21	35
DRAFTERS	40	0.84	16
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	0.42	N/A
SALES AND RELATED OCCUPATIONS	180	3.77	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	40	0.84	16
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	130	2.73	11
ALL OTHER SALES AND RELATED WORKERS	10	0.21	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	580	12.16	N/A
SECRETARIES	140	2.94	8
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	120	2.52	6
PAYROLL AND TIMEKEEPING CLERKS	10	0.21	20
GENERAL OFFICE CLERKS	120	2.52	9
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.21	25
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.21	31
SWITCHBOARD OPERATORS	10	0.21	35
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	90	1.89	9
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	70	1.47	N/A
SERVICE OCCUPATIONS	60	1.26	N/A
GUARDS AND WATCH GUARDS	10	0.21	12
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	1.05	11
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	110	2.31	N/A
SUPERVISORS-AGRICULTURAL,FOR.FISH.& REL OCCUP	10	0.21	30
FALLERS AND BUCKERS	20	0.42	23
LOG HANDLING EQUIPMENT OPERATORS	30	0.63	20
LOGGING TRACTOR OPERATORS	20	0.42	27
LOG GRADERS AND SCALERS	20	0.42	19
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	10	0.21	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,310	69.39	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	170	3.56	8
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	40	0.84	15

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1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LUMBER AND WOOD PRODUCTS
SIC = 24
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MACHINERY MAINTENANCE MECHANICS	10	0.21	15
MACHINERY MAINTENANCE WORKERS	20	0.42	14
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	1.26	10
CARPENTERS	140	2.94	16
ALL OTHER PRECISION METAL WORKERS	30	0.63	N/A
WOOD MACHINISTS	230	4.82	14
CABINETMAKERS AND BENCH CARPENTERS	470	9.85	12
ALL OTHER PRECISION WORKERS	30	0.63	N/A
WELDING MACHINE OPERATORS AND TENDERS	10	0.21	35
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	30	0.63	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	120	2.52	N/A
SAWING MACHINE SETTERS AND SET-UP OPERATORS	60	1.26	13
HEAD SAWYERS	40	0.84	11
SAWING MACHINE OPERATORS AND TENDERS	160	3.35	11
WOODWORK MACH SETTER, SET-UP OPER EXC SAWING	140	2.94	20
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	280	5.87	16
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	10	0.21	N/A
CUTTING, SLICING MACH OPERATORS AND TENDERS	20	0.42	28
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	30	0.63	25
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	90	1.89	18
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	70	1.47	21
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	10	0.21	31
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.21	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.21	N/A
SOLDERERS AND BRAZERS	10	0.21	31
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	250	5.24	15
ALL OTHER HAND WORKERS	60	1.26	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	130	2.73	7
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	80	1.68	8
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	40	0.84	20
MACHINE FEEDERS AND OFFBEARERS	170	3.56	11
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	140	2.94	18
HAND PACKERS AND PACKAGERS	110	2.31	14
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.42	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MILLWORK, PLYWOOD & STRUCTURAL MEMBERS
SIC = 243
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,470	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	130	8.84	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	130	8.84	4
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	30	2.04	N/A
ACCOUNTANTS AND AUDITORS	10	0.68	29
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.68	N/A
DRAFTERS	10	0.68	27
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.68	N/A
SALES AND RELATED OCCUPATIONS	90	6.12	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	20	1.36	24
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	60	4.08	16
ALL OTHER SALES AND RELATED WORKERS	10	0.68	33
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	170	11.56	N/A
SECRETARIES	50	3.40	11
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	2.72	8
GENERAL OFFICE CLERKS	40	2.72	11
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	2.04	13
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.68	N/A
SERVICE OCCUPATIONS	20	1.36	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.68	17
ALL OTHER SERVICE WORKERS	10	0.68	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,030	70.07	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	40	2.72	11
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	10	0.68	28
MACHINERY MAINTENANCE MECHANICS	10	0.68	28
MACHINERY MAINTENANCE WORKERS	10	0.68	22
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.68	25
CARPENTERS	50	3.40	28
WOOD MACHINISTS	90	6.12	15
CABINETMAKERS AND BENCH CARPENTERS	360	24.49	11
ALL OTHER PRECISION WORKERS	10	0.68	N/A
SAWING MACHINE SETTERS AND SET-UP OPERATORS	30	2.04	21
SAWING MACHINE OPERATORS AND TENDERS	20	1.36	28
WOODWORK MACH SETTER, SET-UP OPER EXC SAWING	60	4.08	29
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	40	2.72	25
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.68	28
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	30	2.04	20
ALL OTHER MACHINE OPERATORS AND TENDERS	30	2.04	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	80	5.44	35

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MILLWORK, PLYWOOD & STRUCTURAL MEMBERS
SIC = 243
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	50	3.40	12
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.68	20
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	10	0.68	23
MACHINE FEEDERS AND OFFBEARERS	40	2.72	26
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	30	2.04	28
HAND PACKERS AND PACKAGERS	20	1.36	34

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS WOOD PRODUCTS
SIC = 249
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,980	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	160	8.08	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	100	5.05	12
ALL OTHER MANAGERS AND ADMINISTRATORS	60	3.03	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	70	3.54	N/A
ACCOUNTANTS AND AUDITORS	20	1.01	19
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	1.01	23
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.51	20
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	0.00	N/A
MECHANICAL ENGINEERS	10	0.51	35
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.51	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.51	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	**	0.00	N/A
SALES AND RELATED OCCUPATIONS	50	2.53	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	40	2.02	21
ALL OTHER SALES AND RELATED WORKERS	10	0.51	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	260	13.13	N/A
SECRETARIES	50	2.53	18
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	2.02	13
PAYROLL AND TIMEKEEPING CLERKS	10	0.51	20
GENERAL OFFICE CLERKS	40	2.02	18
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.51	25
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.51	31
SWITCHBOARD OPERATORS	10	0.51	35
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	50	2.53	15
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.51	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	50	2.53	N/A
SERVICE OCCUPATIONS	30	1.52	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	1.01	16
ALL OTHER SERVICE WORKERS	10	0.51	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,400	70.71	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	80	4.04	16
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.51	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.51	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.51	N/A
MACHINERY MAINTENANCE WORKERS	10	0.51	29
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	1.52	14
ALL OTHER CONSTRUCTION TRADES WORKERS	20	1.01	N/A
ALL OTHER PRECISION METAL WORKERS	30	1.52	N/A
ALL OTHER PRECISION WOODWORKERS	160	8.08	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS WOOD PRODUCTS
SIC = 249
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION WORKERS	30	1.52	34
WELDING MACHINE OPERATORS AND TENDERS	10	0.51	35
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	50	2.53	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	110	5.56	N/A
SAWING MACHINE SETTERS AND SET-UP OPERATORS	10	0.51	26
SAWING MACHINE OPERATORS AND TENDERS	50	2.53	27
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	190	9.60	23
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	60	3.03	26
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	60	3.03	25
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	60	3.03	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	20	1.01	N/A
SOLDERERS AND BRAZERS	10	0.51	31
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	160	8.08	17
ALL OTHER HAND WORKERS	60	3.03	34
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.51	31
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	1.01	24
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	30	1.52	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	70	3.54	32
HAND PACKERS AND PACKAGERS	60	3.03	19

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** - Employment less than 10
N/A - Relative Error Not Available

SIC 251 and 254

The industry group, Furniture and Fixtures, (SIC 25), includes establishments engaged in manufacturing household, office, public building, and restaurant furniture; and office and store fixtures. Due to the quality of the survey response, occupational distributions are published for only 2 of the five 3-digit industries that comprise this SIC. The two industrial sectors for which occupational profiles were constructed and published are Household Furniture (SIC 251) and Partitions and Fixtures (SIC 254).

The three industrial segments which failed to meet the requisite criteria for publication were the following: Office Furniture (SIC 252); Public Building and Related Furniture (SIC 253); and Miscellaneous Furniture and Fixtures (SIC 259).

The Production, Construction, and Maintenance occupational category is the largest in both SIC 251 and SIC 254. In SIC 251, this occupational grouping accounts for 3,920 jobs or approximately 81 percent of total employment. In SIC 254, the same grouping accounts for 790 jobs or approximately 74 percent of total employment.

In SIC 251, the largest employment in the Production, Construction, and Maintenance group is found in the assembler and fabricator occupation with 660, approximately 17 percent of the total of this category. In SIC 254, the occupation with the largest employment in this same occupational category is also the assembler and fabricator, with 170 or approximately 22 percent of the total employment in this group.

TABLE
OCCUPATIONS OF EMPLOYEES
HOUSEHOLD FURNITURE
SIC = 251
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,840	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	220	4.55	N/A
FINANCIAL MANAGERS	10	0.21	24
INDUSTRIAL PRODUCTION MANAGERS	10	0.21	30
GENERAL MANAGERS AND TOP EXECUTIVES	190	3.93	9
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.21	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	50	1.03	N/A
ACCOUNTANTS AND AUDITORS	20	0.41	23
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.21	33
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.21	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.21	N/A
SALES AND RELATED OCCUPATIONS	140	2.89	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	100	2.07	25
ALL OTHER SALES AND RELATED WORKERS	40	0.83	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	440	9.09	N/A
SECRETARIES	80	1.65	13
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.21	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	80	1.65	14
PAYROLL AND TIMEKEEPING CLERKS	10	0.21	16
BILLING, COST AND RATE CLERKS	10	0.21	17
GENERAL OFFICE CLERKS	110	2.27	18
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.21	25
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.21	28
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	90	1.86	16
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.21	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.21	N/A
SERVICE OCCUPATIONS	70	1.45	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	10	0.21	N/A
GUARDS AND WATCH GUARDS	10	0.21	24
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	1.03	25
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,920	80.99	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	220	4.55	12
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.21	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	50	1.03	22
MACHINERY MAINTENANCE MECHANICS	10	0.21	35
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	1.24	N/A
CARPENTERS	10	0.21	33
WOOD MACHINISTS	310	6.40	19
CABINETMAKERS AND BENCH CARPENTERS	280	5.79	28
ALL OTHER PRECISION WOODWORKERS	70	1.45	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HOUSEHOLD FURNITURE
SIC = 251
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
UPHOLSTERERS	250	5.17	21
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	10	0.21	N/A
ALL OTHER PRECISION WORKERS	20	0.41	N/A
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	20	0.41	35
MACH FORMING OPER & TENDERS, METAL & PLASTIC	90	1.86	36
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	10	0.21	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.21	N/A
SAWING MACHINE SETTERS AND SET-UP OPERATORS	10	0.21	25
SAWING MACHINE OPERATORS AND TENDERS	190	3.93	18
WOODWORK MACH SETTER, SET-UP OPER EXC SAWING	160	3.31	19
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	230	4.75	23
TEXTILE MACHINE OPERATORS AND TENDERS	60	1.24	33
SEWING MACHINE OPERATORS, NON-GARMENT	220	4.55	16
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	150	3.10	21
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	40	0.83	23
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	30	0.62	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	20	0.41	N/A
CUTTERS AND TRIMMERS, HAND	70	1.45	25
PAINTING, COATING & DECORATING WORKERS- HAND	80	1.65	35
GRINDING & POLISHING WORKERS, HAND	60	1.24	27
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	660	13.64	14
ALL OTHER HAND WORKERS	100	2.07	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	120	2.48	26
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.41	25
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.41	N/A
MACHINE FEEDERS AND OFFBEARERS	40	0.83	29
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	90	1.86	18
HAND PACKERS AND PACKAGERS	40	0.83	22
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	80	1.65	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PARTITIONS AND FIXTURES
SIC = 254
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,070	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	70	6.54	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	60	5.61	7
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.93	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	30	2.80	N/A
ACCOUNTANTS AND AUDITORS	10	0.93	10
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.93	N/A
DRAFTERS	10	0.93	35
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.93	N/A
SALES AND RELATED OCCUPATIONS	60	5.61	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.93	35
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	30	2.80	20
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	2.80	25
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	130	12.15	N/A
SECRETARIES	30	2.80	10
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	2.80	10
GENERAL OFFICE CLERKS	30	2.80	12
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.93	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	1.87	18
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	1.87	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	790	73.83	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	50	4.67	15
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.93	33
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.93	11
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.93	N/A
CARPENTERS	30	2.80	23
WOOD MACHINISTS	20	1.87	32
CABINETMAKERS AND BENCH CARPENTERS	100	9.35	13
ALL OTHER PRECISION WORKERS	10	0.93	N/A
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	30	2.80	15
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	50	4.67	27
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	10	0.93	35
MACH FORMING OPER & TENDERS, METAL & PLASTIC	40	3.74	26
WELDING MACHINE OPERATORS AND TENDERS	10	0.93	32
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.93	N/A
SAWING MACHINE OPERATORS AND TENDERS	30	2.80	46
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	10	0.93	43

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PARTITIONS AND FIXTURES
SIC = 254
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	20	1.87	24
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	10	0.93	28
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	20	1.87	35
WELDERS AND CUTTERS	30	2.80	49
PAINTING, COATING & DECORATING WORKERS- HAND	10	0.93	45
GRINDING & POLISHING WORKERS, HAND	20	1.87	28
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	170	15.89	31
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.93	17
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.93	29
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.93	44
MACHINE FEEDERS AND OFFBEARERS	10	0.93	47
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.93	28
HAND PACKERS AND PACKAGERS	20	1.87	32
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	60	5.61	N/A

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SIC 26

This major group includes the manufacture of pulp from wood and other cellulose fibers, and from rags; the manufacture of paper and paperboard; and the manufacture of paper and paperboard into converted products such as coated paper, bags, boxes and envelopes.

Over the three year time frame, 1980-1983, employment in this industry has fallen by 2,400 from 28,200 to 25,800, a percentage decline of -0.7. Although the employment decline has been persistent from 1980-1983, within the paper industry, it is uncomparable to the percentage decline of -16.7 percent for the nondurables group.

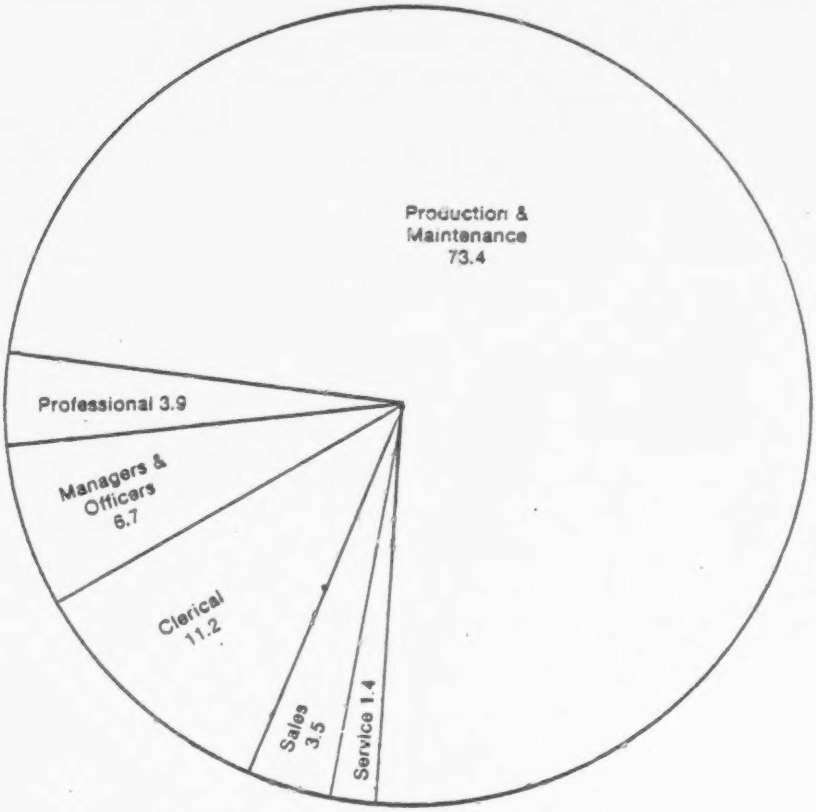
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	26	262	265
TOTAL	100%	100%	100%
Managerial & Administrative	6.68	7.16	4.81
Profess., Paraprofess., Tech.	3.90	5.93	2.34
Sales and Related	3.51	2.86	4.68
Clerical & Admin. Support	11.21	11.04	10.79
Service	1.44	1.43	1.04
Prod., Construction & Maint.	73.37	71.57	76.33

This industry is labor intensive as demonstrated by 73.4 percent of the industry's jobs being located in the Production, Construction and Maintenance occupations.

PAPER AND ALLIED PRODUCTS (SIC 26)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	All Other Helpers, Laborers, and Material Movers, Hand	3,230
2.	All Other Machine Operators and Tenders	2,900
3.	Paper Goods Machine Setters, and Set-up Operators	2,430
4.	All Other Machine Setters and Set-up Operators	1,160
5.	Printing, Press Machine Operators and Tenders	1,030
6.	Cutting and Slicing Machine Operators and Tenders	1,030
7.	Supervisors, Production and Operating Workers	1,020
8.	General Managers and Top Executives	960
9.	All Other Hand Workers	860
10.	Sales Representatives, except Scientific and Retail	660

These 10 occupational categories make up 59.7% of total industry employment.

# TABLE
# OCCUPATIONS OF EMPLOYEES
# PAPER AND ALLIED PRODUCTS
SIC = 26
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	25,610	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,710	6.68	N/A
PURCHASING MANAGERS	50	0.20	35
INDUSTRIAL PRODUCTION MANAGERS	190	0.74	33
GENERAL MANAGERS AND TOP EXECUTIVES	960	3.75	22
ALL OTHER MANAGERS AND ADMINISTRATORS	510	1.99	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,000	3.90	N/A
ALL OTHER FINANCIAL SPECIALISTS	170	0.66	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	100	0.39	29
COST ESTIMATORS	40	0.16	23
ALL OTHER MANAGEMENT SUPPORT WORKERS	80	0.31	N/A
MECHANICAL ENGINEERS	40	0.16	33
ALL OTHER ENGINEERS	120	0.47	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.04	22
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	150	0.59	N/A
ALL OTHER PHYSICAL SCIENTISTS	40	0.16	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.04	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	240	0.94	N/A
SALES AND RELATED OCCUPATIONS	900	3.51	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	70	0.27	34
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	660	2.58	26
ALL OTHER SALES AND RELATED WORKERS	170	0.66	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,870	11.21	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	120	0.47	26
SECRETARIES	420	1.64	20
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	90	0.35	32
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	460	1.80	27
PAYROLL AND TIMEKEEPING CLERKS	80	0.31	27
BILLING, COST AND RATE CLERKS	100	0.39	34
GENERAL OFFICE CLERKS	420	1.64	24
ALL OTHER OFFICE MACHINE OPERATORS	100	0.39	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	130	0.51	31
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	20	0.08	25
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	110	0.43	25
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	550	2.15	20
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.08	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	250	0.98	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
PAPER AND ALLIED PRODUCTS
SIC = 26
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	370	1.44	N/A
GUARDS AND WATCH GUARDS	40	0.16	24
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	250	0.98	30
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.08	N/A
ALL OTHER SERVICE WORKERS	60	0.23	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	18,790	73.37	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	90	0.35	32
SUPERVISORS-PRODUCTION & OPERATING WORKERS	1,020	3.98	17
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	430	1.68	24
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	140	0.55	33
ALL OTHER MACHINERY MAINTENANCE MECHANICS	170	0.66	N/A
MILLWRIGHTS	160	0.62	31
MAINTENANCE REPAIRERS, GENERAL UTILITY	600	2.34	33
AUTOMOTIVE MECHANICS	10	0.04	20
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	10	0.04	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	110	0.43	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	240	0.94	N/A
MACHINISTS	60	0.23	35
ALL OTHER PRECISION METAL WORKERS	60	0.23	N/A
ALL OTHER PRECISION WORKERS	20	0.08	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	550	2.15	N/A
PRINTING PRESS MACHINE OPERATORS AND TENDERS	1,030	4.02	33
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	190	0.74	N/A
PAPER GOODS MACHINE SETTERS, SET-UP OPERATORS	2,430	9.49	34
BOILER OPERATORS AND TENDERS, LOW PRESSURE	140	0.55	28
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	40	0.16	26
CUTTING, SLICING MACH OPERATORS AND TENDERS	1,030	4.02	27
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	510	1.99	19
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	10	0.04	20
SEPARATING,FILTERING & STILL MACHINE OPERATOR	10	0.04	25
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	550	2.15	25
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	1,160	4.53	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	2,900	11.32	N/A
ALL OTHER HAND WORKERS	860	3.36	N/A
LIQUID WASTE TREATMENT PLANT & SYSTEM OPER.	20	0.08	15
ALL OTHER PLANT AND SYSTEM OPERATORS	70	0.27	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
PAPER AND ALLIED PRODUCTS
SIC = 26
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	260	1.02	22
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	60	0.23	34
CRANE AND TOWER OPERATORS	20	0.08	5
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	540	2.11	25
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	30	0.12	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	3,230	12.61	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
PAPER MILLS
SIC = 262
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,890	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	350	7.16	N/A
FINANCIAL MANAGERS	30	0.61	16
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.41	7
PURCHASING MANAGERS	10	0.20	15
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	0.61	8
ADMINISTRATIVE SERVICES MANAGERS	10	0.20	33
INDUSTRIAL PRODUCTION MANAGERS	80	1.64	21
GENERAL MANAGERS AND TOP EXECUTIVES	100	2.04	7
ALL OTHER MANAGERS AND ADMINISTRATORS	70	1.43	17
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	290	5.93	N/A
ACCOUNTANTS AND AUDITORS	40	0.82	12
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.41	10
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.20	11
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.41	N/A
CHEMICAL ENGINEERS	30	0.61	20
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.20	11
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.20	8
MECHANICAL ENGINEERS	20	0.41	13
ALL OTHER ENGINEERS	10	0.20	N/A
DRAFTERS	10	0.20	28
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.41	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.20	15
ALL OTHER PHYSICAL SCIENTISTS	10	0.20	35
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	40	0.82	17
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.20	20
COMPUTER PROGRAMMERS	10	0.20	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.20	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.20	N/A
SALES AND RELATED OCCUPATIONS	140	2.86	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	1.02	11
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	20	0.41	45
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	50	1.02	15
ALL OTHER SALES AND RELATED WORKERS	20	0.41	12
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	540	11.04	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	1.43	5
SECRETARIES	70	1.43	13
STENOGRAPHERS	10	0.20	14
RECEPTIONIST AND INFORMATION CLERKS	10	0.20	24
TYPISTS	10	0.20	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
PAPER MILLS
SIC = 262
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.20	24
FILE CLERKS	10	0.20	14
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	0.41	19
PROCUREMENT CLERKS	10	0.20	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	0.82	10
PAYROLL AND TIMEKEEPING CLERKS	20	0.41	8
BILLING, COST AND RATE CLERKS	30	0.61	19
GENERAL OFFICE CLERKS	20	0.41	12
BILLING, POSTING, CALCULATING MACH. OPERATORS	10	0.20	33
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.20	18
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.20	N/A
SWITCHBOARD OPERATORS	20	0.41	12
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	30	0.61	5
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.20	27
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	60	1.23	16
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	60	1.23	9
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.20	32
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.20	N/A
SERVICE OCCUPATIONS	70	1.43	N/A
GUARDS AND WATCH GUARDS	30	0.61	12
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	40	0.82	7
ALL OTHER SERVICE WORKERS	10	0.20	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,500	71.57	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.41	18
SUPERVISORS-PRODUCTION & OPERATING WORKERS	180	3.68	9
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.20	N/A
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.20	48
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	0.41	21
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	140	2.86	5
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	40	0.82	29
ALL OTHER MACHINERY MAINTENANCE MECHANICS	20	0.41	N/A
MILLWRIGHTS	110	2.25	10
MACHINERY MAINTENANCE WORKERS	50	1.02	37
MAINTENANCE REPAIRERS, GENERAL UTILITY	120	2.45	16
PRECISION INSTRUMENT REPAIRERS	20	0.41	13
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.20	N/A
ELECTRICIANS	60	1.23	7
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.20	17
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	40	0.82	7
MACHINISTS	10	0.20	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
PAPER MILLS
SIC = 262
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION METAL WORKERS	10	0.20	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	90	1.84	N/A
PAPER GOODS MACHINE SETTERS, SET-UP OPERATORS	160	3.27	30
BOILER OPERATORS AND TENDERS, LOW PRESSURE	80	1.64	12
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	40	0.82	26
CHEMICAL EQUIPMENT TENDERS	30	0.61	N/A
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	50	1.02	31
CUTTING, SLICING MACH OPERATORS AND TENDERS	180	3.68	21
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	20	0.41	35
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	10	0.20	33
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	10	0.20	20
SEPARATING,FILTERING & STILL MACHINE OPERATOR	10	0.20	25
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	180	3.68	12
EXTRUDING, FORMING, PRESSING MACHINE OPERATOR	30	0.61	34
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	60	1.23	5
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	90	1.84	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	910	18.61	12
WELDERS AND CUTTERS	10	0.20	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	20	0.41	5
ALL OTHER HAND WORKERS	70	1.43	N/A
LIQUID WASTE TREATMENT PLANT & SYSTEM OPER.	20	0.41	15
STATIONARY ENGINEERS	30	0.61	24
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.41	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.20	12
CRANE AND TOWER OPERATORS	20	0.41	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	100	2.04	11
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.20	N/A
MACHINE FEEDERS AND OFFBEARERS	40	0.82	45
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	80	1.64	7
HAND PACKERS AND PACKAGERS	110	2.25	22
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	180	3.68	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAPERBOARD CONTAINERS AND BOXES
SIC = 265
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,690	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	370	4.81	N/A
FINANCIAL MANAGERS	20	0.26	9
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.13	12
PURCHASING MANAGERS	10	0.13	13
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.26	11
ADMINISTRATIVE SERVICES MANAGERS	10	0.13	19
INDUSTRIAL PRODUCTION MANAGERS	60	0.78	16
GENERAL MANAGERS AND TOP EXECUTIVES	240	3.12	19
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.13	26
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	180	2.34	N/A
ACCOUNTANTS AND AUDITORS	30	0.39	37
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.26	26
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.13	N/A
COST ESTIMATORS	30	0.39	14
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.13	28
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.13	47
MECHANICAL ENGINEERS	10	0.13	17
ALL OTHER ENGINEERS	10	0.13	25
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.13	35
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.13	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.13	18
DESIGNERS, EXCEPT INTERIOR DESIGNERS	20	0.26	23
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.13	N/A
SALES AND RELATED OCCUPATIONS	360	4.68	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.26	15
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	300	3.90	12
ALL OTHER SALES AND RELATED WORKERS	50	0.65	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	830	10.79	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.26	25
SECRETARIES	110	1.43	23
RECEPTIONIST AND INFORMATION CLERKS	20	0.26	28
TYPISTS	10	0.13	30
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.13	41
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.13	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	0.65	15
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	110	1.43	17
PAYROLL AND TIMEKEEPING CLERKS	20	0.26	41
BILLING, COST AND RATE CLERKS	30	0.39	13
GENERAL OFFICE CLERKS	170	2.21	22

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1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAPERBOARD CONTAINERS AND BOXES
SIC = 265
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.13	20
SWITCHBOARD OPERATORS	10	0.13	12
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	40	0.52	11
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	30	0.39	26
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	160	2.08	15
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.39	94
SERVICE OCCUPATIONS	80	1.04	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	30	0.39	27
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	0.65	23
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,870	76.33	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.13	24
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	10	0.13	46
SUPERVISORS-PRODUCTION & OPERATING WORKERS	320	4.16	14
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.13	20
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.13	26
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	180	2.34	39
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	50	0.65	47
ALL OTHER MACHINERY MAINTENANCE MECHANICS	50	0.65	14
MAINTENANCE REPAIRERS, GENERAL UTILITY	180	2.34	19
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.13	N/A
CARPENTERS	10	0.13	33
ELECTRICIANS	10	0.13	11
TOOL AND DIE MAKERS	40	0.52	14
MACHINISTS	20	0.26	34
BOILERMAKERS	10	0.13	45
PRECISION COMPOSITORS, TYPESETTERS, ARRANGERS	10	0.13	40
ALL OTHER PRECISION WORKERS	10	0.13	22
PRINTING PRESS MACHINE SETTER,SET-UP OPERATOR	90	1.17	17
PHOTOENGRAVING AND LITHOGRAPHING PHOTOGRAPHER	10	0.13	22
SPEC MATERIALS PRINT MACH SETTER,SET-UP OPER	80	1.04	22
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	10	0.13	32
PRINTING PRESS MACHINE OPERATORS AND TENDERS	400	5.20	26
PHOTOENGRAVING,LITHO MACH OPERATORS & TENDERS	10	0.13	35
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	10	0.13	40
PAPER GOODS MACHINE SETTERS, SET-UP OPERATORS	720	9.36	14
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.13	22
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	130	1.69	31
CUTTING, SLICING MACH OPERATORS AND TENDERS	430	5.59	21
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.13	39

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAPERBOARD CONTAINERS AND BOXES
SIC = 265
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	130	1.69	30
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	420	5.46	19
EXTRUDING, FORMING, PRESSING MACHINE OPERATOR	20	0.26	29
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	450	5.85	28
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	110	1.43	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	110	1.43	N/A
CUTTERS AND TRIMMERS, HAND	90	1.17	34
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	210	2.73	23
ALL OTHER HAND WORKERS	40	0.52	24
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	200	2.60	20
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	30	0.39	35
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	150	1.95	21
CONVEYOR OPERATORS AND TENDERS	10	0.13	22
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.13	N/A
MECHANIC AND REPAIRER HELPERS	30	0.39	38
MACHINE FEEDERS AND OFFBEARERS	470	6.11	19
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	150	1.95	26
HAND PACKERS AND PACKAGERS	250	3.25	26
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	170	2.21	20

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SIC 27

This major group encompasses establishments engaged in printing, bookbinding, typesetting, and engraving; and the publishing of books, periodicals and newspapers. Printing and publishing once again is the largest employer in the nondurable goods sector, leading apparel, the second largest, by 25 percent. This industry is the only nondurable goods industry to gain employment since the 1980 survey, rising 7.7 percent in contrast to the drop of 16.7 percent in the nondurable goods sector.

PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	27	271	272	273	275	279
TOTAL	100%	100%	100%	100%	100%	100%
Managerial & Admin. Occs.	7.50	7.52	10.15	8.39	7.27	7.56
Pro. Tech. Occs.	11.35	20.65	25.56	10.91	4.07	6.72
Sales Occs.	7.29	11.80	13.53	3.86	4.50	6.72
Clerical Occs.	22.10	21.90	40.23	26.01	18.55	46.22
Service Occs.	1.51	2.43	--	1.51	1.17	--
Prod. & Main. Occs.	50.22	35.77	10.15	49.33	64.51	33.61

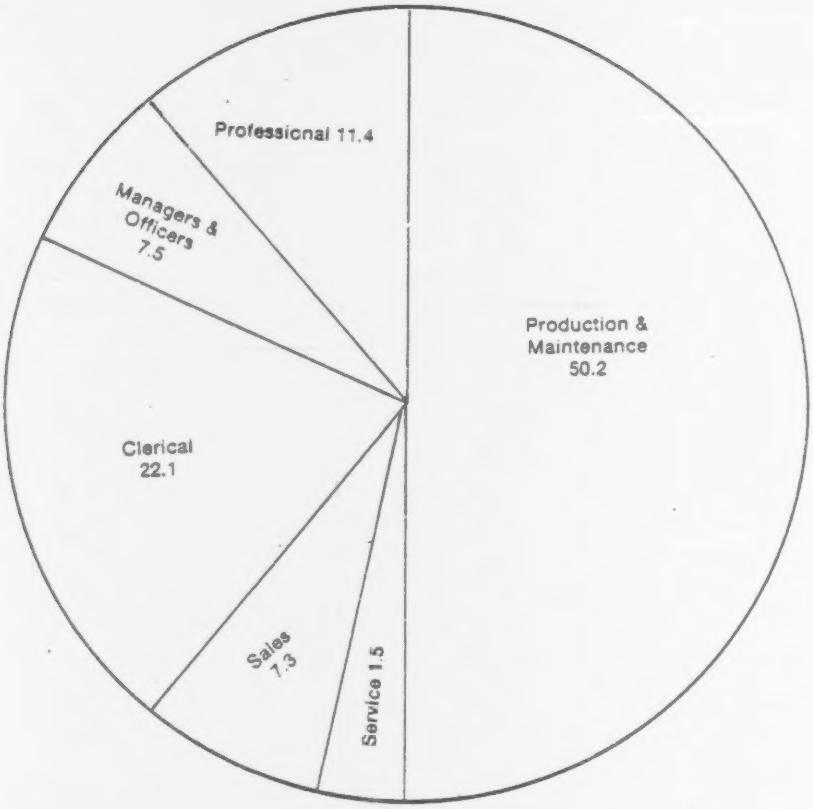
Production and maintenance occupations account for 50 percent of the employment in this industry and 57 percent of the top ten ranked occupational titles.

The professional and technical occupations in SIC's 271 (Newspapers) and 272 (Periodicals) are largely represented by writers, editors, reporters and correspondents, who comprise 80 percent of employment in those categories in industry 271 and 63 percent in industry 272.

The commercial printing (SIC 275) industry employs 45 percent (10,470) of the production and maintenance workers employed in the publishing industries. The concentration of printing press machine operators (76 percent of total employment) offset lithograph setters and set-up operators (78 percent of total) and precision lithography, photoengraving workers (66 percent) are contributing factors to the high level of employment in this category.

PRINTING, PUBLISHING AND ALLIED INDUSTRIES (SIC 27)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	General Managers and Top Executives	2,550
2.	All Other Precision Printing Workers	1,910
3.	Writers and Editors	1,840
4.	Printing Press Machine Operators and Tenders	1,810
5,	Offset Lithograpers Press Setters and Set-up Operators	1,750
6.	Sales Representatives except Scientific Products and Retail	1,700
7.	Precision Lithography and Photoengraving Workers	1,650
8.	Secretaries	1,540
9.	Typesetting and Composing Machine Operators and Tenders	1,530
10.	Supervisors - Production and Operating Workers	1,470

These 10 occupational categories make up 38.4% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
PRINTING, PUBLISHING & ALLIED INDUSTRIES
SIC = 27
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	46,240	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3,470	7.50	N/A
FINANCIAL MANAGERS	150	0.32	18
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	70	0.15	16
PURCHASING MANAGERS	60	0.13	22
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	200	0.43	23
INDUSTRIAL PRODUCTION MANAGERS	170	0.37	21
GENERAL MANAGERS AND TOP EXECUTIVES	2,550	5.51	10
ALL OTHER MANAGERS AND ADMINISTRATORS	270	0.58	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	5,250	11.35	N/A
ACCOUNTANTS AND AUDITORS	90	0.19	12
ALL OTHER FINANCIAL SPECIALISTS	30	0.06	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	70	0.15	22
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.06	13
COST ESTIMATORS	90	0.19	16
ALL OTHER MANAGEMENT SUPPORT WORKERS	80	0.17	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	30	0.06	23
MECHANICAL ENGINEERS	10	0.02	29
ALL OTHER ENGINEERS	20	0.04	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	380	0.82	N/A
COMPUTER PROGRAMMER AIDES	40	0.09	34
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.02	19
WRITERS AND EDITORS	1,840	3.98	18
REPORTERS AND CORRESPONDENTS	1,210	2.62	30
PHOTOGRAPHERS	140	0.30	29
ARTISTS AND RELATED WORKERS	400	0.87	25
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	780	1.69	N/A
SALES AND RELATED OCCUPATIONS	3,370	7.29	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	310	0.67	16
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	470	1.02	33
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	1,700	3.68	23
ALL OTHER SALES AND RELATED WORKERS	890	1.92	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	10,220	22.10	N/A
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	40	0.09	20
ADVERTISING CLERKS	280	0.61	35
PROOFREADERS AND COPY MARKERS	930	2.01	14
SECRETARIES	1,540	3.33	10
TYPISTS, WORD PROCESSING EQUIPMENT	380	0.82	30
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	40	0.09	26
FILE CLERKS	30	0.06	26

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PRINTING, PUBLISHING & ALLIED INDUSTRIES
SIC = 27
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	370	0.80	25
PROCUREMENT CLERKS	20	0.04	22
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,290	2.79	13
PAYROLL AND TIMEKEEPING CLERKS	70	0.15	23
BILLING, COST AND RATE CLERKS	120	0.26	31
GENERAL OFFICE CLERKS	1,390	3.01	18
DATA KEYERS, COMPOSING	700	1.51	29
ALL OTHER OFFICE MACHINE OPERATORS	1,330	2.88	N/A
SWITCHBOARD OPERATORS	140	0.30	22
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	120	0.26	35
MESSENGERS	90	0.19	29
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	140	0.30	26
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	610	1.32	16
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	210	0.45	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	380	0.82	N/A
SERVICE OCCUPATIONS	700	1.51	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	40	0.09	29
GUARDS AND WATCH GUARDS	60	0.13	15
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	460	0.99	12
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	40	0.09	N/A
ALL OTHER SERVICE WORKERS	100	0.22	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	23,220	50.22	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	1,470	3.18	16
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	40	0.09	23
MAINTENANCE REPAIRERS, GENERAL UTILITY	220	0.48	15
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	790	1.71	N/A
ELECTRICIANS	50	0.11	34
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	10	0.02	19
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.04	N/A
MACHINISTS	60	0.13	28
ALL OTHER PRECISION METAL WORKERS	20	0.04	N/A
PRECISION LITHOGRAPHY, PHOTOENGRAVING WORKERS	1,650	3.57	12
ALL OTHER PRECISION PRINTING WORKERS	1,910	4.13	N/A
PRECISION DETAIL DESIGN DECORATORS & PAINTERS	350	0.76	31
ALL OTHER PRECISION WORKERS	300	0.65	N/A
OFFSET LITHO PRESS SETTER & SET-UP OPERATORS	1,750	3.78	11
LETTERPRESS SETTERS AND SET-UP OPERATORS	580	1.25	24
ALL OTHER PRINTING PRESS SETTERS, SET-UP OPER	520	1.12	14
PHOTOENGRAVING AND LITHOGRAPHING PHOTOGRAPHER	550	1.19	16

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PRINTING, PUBLISHING & ALLIED INDUSTRIES
SIC = 27
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
BINDERY MACHINE SETTERS AND SET-UP OPERATORS	1,060	2.29	22
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	250	0.54	N/A
TYPESETTING & COMPOSING MACH OPER & TENDERS	1,530	3.31	22
PRINTING PRESS MACHINE OPERATORS AND TENDERS	1,810	3.91	13
BINDERY MACHINE OPERATORS	1,410	3.05	16
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	740	1.60	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	80	0.17	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	350	0.76	N/A
ALL OTHER HAND WORKERS	840	1.82	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	1,210	2.62	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	130	0.28	30
ALL OTHFR MATERIAL MOVING EQUIPMENT OPERATORS	10	0.02	N/A
MACHINE FEEDERS AND OFFBEARERS	1,310	2.83	19
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	690	1.49	34
HAND PACKERS AND PACKAGERS	990	2.14	25
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	520	1.12	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NEWSPAPERS
SIC = 271
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	13,560	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,020	7.52	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	780	5.75	30
ALL OTHER MANAGERS AND ADMINISTRATORS	230	1.70	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	2,800	20.65	N/A
ACCOUNTANTS AND AUDITORS	10	0.07	N/A
ALL OTHER FINANCIAL SPECIALISTS	20	0.15	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.15	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.15	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	100	0.74	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	20	0.15	N/A
WRITERS AND EDITORS	1,070	7.89	27
REPORTERS AND CORRESPONDENTS	1,170	8.63	31
PHOTOGRAPHERS	100	0.74	34
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	280	2.06	N/A
SALES AND RELATED OCCUPATIONS	1,600	11.80	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	230	1.70	19
ALL OTHER SALES AND RELATED WORKERS	1,370	10.10	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,970	21.90	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	100	0.74	N/A
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	40	0.29	20
SECRETARIES	280	2.06	N/A
TYPISTS	260	1.92	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	330	2.43	N/A
GENERAL OFFICE CLERKS	510	3.76	N/A
ALL OTHER OFFICE MACHINE OPERATORS	510	3.76	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	140	1.03	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	800	5.90	N/A
SERVICE OCCUPATIONS	330	2.43	N/A
GUARDS AND WATCH GUARDS	40	0.29	16
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	180	1.33	24
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	30	0.22	N/A
ALL OTHER SERVICE WORKERS	80	0.59	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,850	35.77	N/A
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	30	0.22	29
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	120	0.88	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	30	0.22	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	40	0.29	N/A
ALL OTHER PRECISION PRINTING WORKERS	490	3.61	N/A
ALL OTHER PRECISION WORKERS	220	1.62	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NEWSPAPERS
SIC = 271
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRINTING PRESS SETTERS, SET-UP OPER	610	4.50	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	120	0.88	N/A
TYPESETTING & COMPOSING MACH OPER & TENDERS	910	6.71	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	370	2.73	N/A
ALL OTHER HAND WORKERS	30	0.22	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	890	6.56	N/A
MACHINE FEEDERS AND OFFBEARERS	190	1.40	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	170	1.25	N/A
HAND PACKERS AND PACKAGERS	610	4.50	35
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.15	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PERIODICALS
SIC = 272
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,660	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	270	10.15	N/A
FINANCIAL MANAGERS	20	0.75	23
GENERAL MANAGERS AND TOP EXECUTIVES	190	7.14	10
ALL OTHER MANAGERS AND ADMINISTRATORS	70	2.63	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	680	25.56	N/A
ACCOUNTANTS AND AUDITORS	10	0.38	32
ALL OTHER FINANCIAL SPECIALISTS	20	0.75	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	70	2.63	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.38	32
COMPUTER PROGRAMMERS	20	0.75	25
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.38	N/A
WRITERS AND EDITORS	390	14.66	17
REPORTERS AND CORRESPONDENTS	40	1.50	28
ARTISTS AND RELATED WORKERS	50	1.88	29
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	60	2.26	N/A
SALES AND RELATED OCCUPATIONS	360	13.53	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	80	3.01	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	190	7.14	19
ALL OTHER SALES AND RELATED WORKERS	100	3.76	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,070	40.23	N/A
SECRETARIES	210	7.89	15
TYPISTS	80	3.01	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	180	6.77	9
GENERAL OFFICE CLERKS	270	10.15	18
DATA KEYERS, COMPOSING	20	0.75	35
ALL OTHER OFFICE MACHINE OPERATORS	30	1.13	N/A
SWITCHBOARD OPERATORS	20	0.75	22
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	20	0.75	24
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	90	3.38	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	160	6.02	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	270	10.15	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	90	3.38	31
ALL OTHER PRECISION PRINTING WORKERS	30	1.13	N/A
ALL OTHER PRECISION WORKERS	50	1.88	N/A
TYPESETTING & COMPOSING MACH OPER & TENDERS	50	1.88	34
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	50	1.88	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.38	N/A

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1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BOOKS, PUBLISHING AND PRINTING
SIC = 273
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	5,960	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	500	8.39	N/A
FINANCIAL MANAGERS	50	0.84	23
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.34	15
PURCHASING MANAGERS	20	0.34	29
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	60	1.01	31
INDUSTRIAL PRODUCTION MANAGERS	30	0.50	23
GENERAL MANAGERS AND TOP EXECUTIVES	240	4.03	18
ALL OTHER MANAGERS AND ADMINISTRATORS	80	1.34	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	650	10.91	N/A
ACCOUNTANTS AND AUDITORS	30	0.50	22
ALL OTHER FINANCIAL SPECIALISTS	10	0.17	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.17	22
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	1.01	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.17	35
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.17	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	110	1.85	N/A
WRITERS AND EDITORS	320	5.37	35
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	100	1.68	N/A
SALES AND RELATED OCCUPATIONS	230	3.86	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	10	0.17	N/A
ALL OTHER SALES AND RELATED WORKERS	220	3.69	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,550	26.01	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	30	0.50	N/A
SECRETARIES	310	5.20	24
TYPISTS	50	0.84	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	150	2.52	26
PAYROLL AND TIMEKEEPING CLERKS	20	0.34	21
BILLING, COST AND RATE CLERKS	20	0.34	26
GENERAL OFFICE CLERKS	190	3.19	28
ALL OTHER OFFICE MACHINE OPERATORS	120	2.01	N/A
SWITCHBOARD OPERATORS	20	0.34	18
MESSENGERS	10	0.17	30
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	30	0.50	31
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	60	1.01	30
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	190	3.19	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	350	5.87	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
BOOKS, PUBLISHING AND PRINTING
SIC = 273
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	90	1.51	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	0.84	24
ALL OTHER SERVICE WORKERS	40	0.67	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,940	49.33	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.17	30
SUPERVISORS-PRODUCTION & OPERATING WORKERS	170	2.85	30
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	20	0.34	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.17	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.50	35
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	260	4.36	N/A
ELECTRICIANS	20	0.34	31
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.17	N/A
MACHINISTS	10	0.17	35
ALL OTHER PRECISION PRINTING WORKERS	440	7.38	N/A
ALL OTHER PRECISION WORKERS	20	0.34	N/A
OFFSET LITHO PRESS SETTER & SET-UP OPERATORS	200	3.36	31
LETTERPRESS SETTERS AND SET-UP OPERATORS	150	2.52	31
ALL OTHER PRINTING PRESS SETTERS, SET-UP OPER	100	1.68	N/A
PHOTOENGRAVING AND LITHOGRAPHING PHOTOGRAPHER	30	0.50	34
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	750	12.58	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.17	N/A
ALL OTHER HAND WORKERS	70	1.17	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.17	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	100	1.68	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.17	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	330	5.54	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	190	3.19	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
COMMERCIAL PRINTING
SIC = 275
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	16,230	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,180	7.27	N/A
FINANCIAL MANAGERS	40	0.25	12
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.12	11
PURCHASING MANAGERS	20	0.12	13
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	40	0.25	21
INDUSTRIAL PRODUCTION MANAGERS	70	0.43	27
GENERAL MANAGERS AND TOP EXECUTIVES	970	5.98	7
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.18	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	660	4.07	N/A
ACCOUNTANTS AND AUDITORS	30	0.18	17
ALL OTHER FINANCIAL SPECIALISTS	10	0.06	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	30	0.18	13
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.06	29
COST ESTIMATORS	60	0.37	15
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.06	31
ALL OTHER ENGINEERS	30	0.18	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.31	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.06	31
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.12	N/A
ARTISTS AND RELATED WORKERS	110	0.68	30
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	300	1.85	33
SALES AND RELATED OCCUPATIONS	730	4.50	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	30	0.18	23
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	60	0.37	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	140	0.86	23
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	470	2.90	12
ALL OTHER SALES AND RELATED WORKERS	40	0.25	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,010	18.55	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	50	0.31	22
PROOFREADERS AND COPY MARKERS	290	1.79	21
SECRETARIES	520	3.20	11
RECEPTIONIST AND INFORMATION CLERKS	10	0.06	27
TYPISTS	100	0.62	23
FILE CLERKS	10	0.06	27
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	170	1.05	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	450	2.77	13
PAYROLL AND TIMEKEEPING CLERKS	30	0.18	15
BILLING, COST AND RATE CLERKS	40	0.25	17
GENERAL OFFICE CLERKS	260	1.60	19

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TABLE
OCCUPATIONS OF EMPLOYEES
COMMERCIAL PRINTING
SIC = 275
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.06	33
DATA KEYERS, COMPOSING	220	1.36	34
ALL OTHER OFFICE MACHINE OPERATORS	140	0.86	N/A
SWITCHBOARD OPERATORS	30	0.18	13
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	90	0.55	20
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	80	0.49	17
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	280	1.73	16
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.12	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	220	1.36	N/A
SERVICE OCCUPATIONS	190	1.17	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	20	0.12	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	160	0.99	18
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.06	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	10,470	64.51	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	680	4.19	10
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.06	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	240	1.48	N/A
MACHINERY MAINTENANCE MECHANICS	20	0.12	35
MAINTENANCE REPAIRERS, GENERAL UTILITY	120	0.74	18
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	110	0.68	N/A
ALL OTHER PRECISION METAL WORKERS	20	0.12	N/A
PRECISION COMPOSITORS, TYPESETTERS, ARRANGERS	140	0.86	25
PRECISION LITHOGRAPHY, PHOTOENGRAVING WORKERS	1,100	6.78	11
ALL OTHER PRECISION PRINTING WORKERS	740	4.56	N/A
ALL OTHER PRECISION WORKERS	350	2.16	N/A
OFFSET LITHO PRESS SETTER & SET-UP OPERATORS	1,380	8.50	N/A
LETTERPRESS SETTERS AND SET-UP OPERATORS	200	1.23	22
ALL OTHER PRINTING PRESS SETTERS, SET-UP OPER	50	0.31	33
PHOTOENGRAVING AND LITHOGRAPHING PHOTOGRAPHER	360	2.22	19
BINDERY MACHINE SETTERS AND SET-UP OPERATORS	510	3.14	19
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	100	0.62	N/A
TYPESETTING & COMPOSING MACH OPER & TENDERS	370	2.28	18
PRINTING PRESS MACHINE OPERATORS AND TENDERS	1,390	8.56	14
BINDERY MACHINE OPERATORS	600	3.70	17
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	280	1.73	N/A
CUTTING, SLICING MACH OPERATORS AND TENDERS	60	0.37	32
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	70	0.43	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	160	0.99	N/A
ALL OTHER HAND WORKERS	400	2.46	32
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.12	32

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TABLE
OCCUPATIONS OF EMPLOYEES
COMMERCIAL PRINTING
SIC = 275
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	210	1.29	14
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.06	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.12	N/A
MACHINE FEEDERS AND OFFBEARERS	350	2.16	29
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	230	1.42	22
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	170	1.05	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
SERVICE INDUSTRIES FOR THE PRINTING TRADE
SIC = 279
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,190	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	90	7.56	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	90	7.56	4
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	80	6.72	N/A
DRAFTERS	10	0.84	35
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.84	28
COMPUTER PROGRAMMERS	20	1.68	23
ARTISTS AND RELATED WORKERS	20	1.68	34
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	1.68	N/A
SALES AND RELATED OCCUPATIONS	80	6.72	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	70	5.88	9
ALL OTHER SALES AND RELATED WORKERS	10	0.84	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	550	46.22	N/A
PROOFREADERS AND COPY MARKERS	190	15.97	4
SECRETARIES	30	2.52	10
TYPISTS	10	0.84	33
TYPISTS, WORD PROCESSING EQUIPMENT	30	2.52	28
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.84	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	4.20	7
GENERAL OFFICE CLERKS	30	2.52	15
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.84	40
DATA KEYERS, COMPOSING	180	15.13	12
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.84	20
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.84	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	400	33.61	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	70	5.88	8
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.84	24
PRECISION COMPOSITORS, TYPESETTERS, ARRANGERS	40	3.36	21
PRECISION LITHOGRAPHY, PHOTOENGRAVING WORKERS	40	3.36	25
ALL OTHER PRECISION PRINTING WORKERS	10	0.84	N/A
PRECISION DETAIL DESIGN DECORATORS & PAINTERS	20	1.68	22
PHOTOENGRAVING AND LITHOGRAPHING PHOTOGRAPHER	40	3.36	12
TYPESETTING & COMPOSING MACH OPER & TENDERS	110	9.24	16
PRINTING PRESS MACHINE OPERATORS AND TENDERS	10	0.84	24
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	10	0.84	N/A
ALL OTHER HAND WORKERS	40	3.36	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	1.68	14

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SIC 28

This major group includes establishments producing basic chemicals, and establishments manufacturing products by predominantly chemical processes.

Employment in the chemical and allied products industry was 16,800 in 1983 which represented a 2.6 percent share of the state's manufacturing work force. Since 1980 employment in the industry has dropped 8.7 percent.

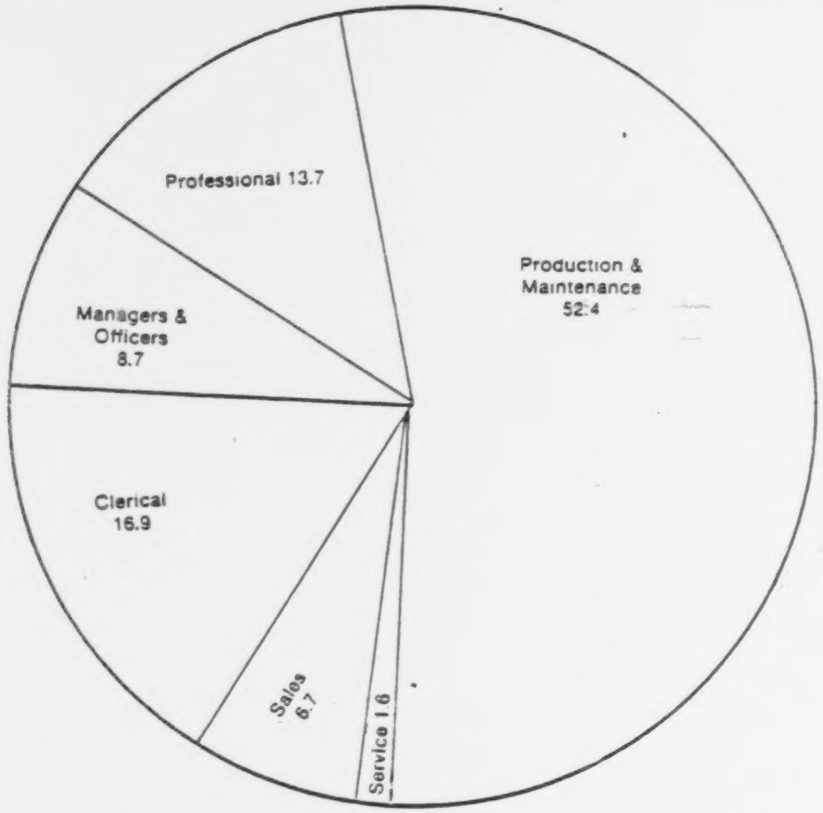
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	28	282	284	285
TOTAL	100%	100%	100%	100%
Managerial & Administrative Occs.	8.70	6.58	8.89	9.66
Profess., Paraprofess., Tech., Occs.	13.73	16.55	8.89	9.66
Sales and Related Occs.	6.69	3.63	6.30	6.21
Clerical & Administrative Support Occs.	16.92	10.43	18.89	22.76
Service Occs.	1.60	2.95	1.48	0.69
Prod., Construc., & Maint., Occs.	52.37	59.86	55.19	51.03

The occupations of crushing, grinding, mixing machine operators and tenders and packaging, filling machine operators and tenders are the largest occupations among all the production workers employing 940 workers respectively. There are 900 employed in the top executive category followed by 810 in the sales representative occupation. Other important occupations are secretaries with 600 and chemists and chemical technicians employing 540 workers.

CHEMICALS AND ALLIED PRODUCTS (SIC 28)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Crushing and Other Machine Operators	940
2.	Packaging and Filling Machine Operators	940
3.	All Other Machine Operators	920
4.	General Managers and Top Executives	900
5.	Sales Representatives, Scientific Products except Retail	810
6.	Supervisors - Production and Operating Workers	780
7.	Secretaries	600
8.	Chemical Equipment Operators and Related Workers	560
9.	Chemists	540
10.	Chemical Technicians and Technologists except Health Workers	540

These 10 occupational categories make up 44.6% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
CHEMICALS AND ALLIED PRODUCTS
SIC = 28
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	16,900	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,470	8.70	N/A
FINANCIAL MANAGERS	60	0.36	32
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	40	0.24	31
PURCHASING MANAGERS	30	0.18	25
INDUSTRIAL PRODUCTION MANAGERS	110	0.65	25
GENERAL MANAGERS AND TOP EXECUTIVES	900	5.33	16
ALL OTHER MANAGERS AND ADMINISTRATORS	330	1.95	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	2,320	13.73	N/A
ACCOUNTANTS AND AUDITORS	170	1.01	13
ALL OTHER FINANCIAL SPECIALISTS	30	0.18	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	50	0.30	19
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.12	26
ALL OTHER MANAGEMENT SUPPORT WORKERS	70	0.41	N/A
CHEMICAL ENGINEERS	270	1.60	23
ELECTRICAL AND ELECTRONIC ENGINEERS	30	0.18	24
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	20	0.12	13
SAFETY ENGINEERS, EXCEPT MINING	20	0.12	27
MECHANICAL ENGINEERS	70	0.41	30
ALL OTHER ENGINEERS	20	0.12	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	30	0.18	34
DRAFTERS	20	0.12	35
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.12	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	540	3.20	17
ALL OTHER PHYSICAL SCIENTISTS	10	0.06	N/A
ALL OTHER LIFE SCIENTISTS	100	0.59	N/A
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	540	3.20	11
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	110	0.65	N/A
REGISTERED NURSES	10	0.06	36
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	30	0.18	N/A
TECHNICAL WRITERS	10	0.06	33
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	130	0.77	N/A
SALES AND RELATED OCCUPATIONS	1,130	6.69	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	70	0.41	29
SALES ENGINEERS	170	1.01	30
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	810	4.79	19
ALL OTHER SALES AND RELATED WORKERS	80	0.47	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,860	16.92	N/A
SECRETARIES	600	3.55	19
TYPISTS	80	0.47	22

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TABLE
OCCUPATIONS OF EMPLOYEES
CHEMICALS AND ALLIED PRODUCTS
SIC = 28
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER OFFICE MACHINE OPERATORS	70	0.41	N/A
SWITCHBOARD OPERATORS	20	0.12	35
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	120	0.71	33
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	260	1.54	21
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	520	3.08	12
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.12	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	240	1.42	N/A
SERVICE OCCUPATIONS	270	1.60	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	180	1.07	12
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.06	N/A
ALL OTHER SERVICE WORKERS	80	0.47	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	8,850	52.37	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	90	0.53	22
SUPERVISORS-PRODUCTION & OPERATING WORKERS	780	4.62	15
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	40	0.24	16
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	330	1.95	35
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	130	0.77	21
ALL OTHER MACHINERY MAINTENANCE MECHANICS	250	1.48	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	320	1.89	17
PRECISION INSTRUMENT REPAIRERS	50	0.30	22
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	130	0.77	N/A
ELECTRICIANS	90	0.53	21
ALL OTHER CONSTRUCTION TRADES WORKERS	120	0.71	N/A
MACHINISTS	90	0.53	35
SHEET METAL WORKERS	10	0.06	33
ALL OTHER PRECISION WORKERS	110	0.65	N/A
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	560	3.31	29
CHEMICAL EQUIPMENT TENDERS	210	1.24	35
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	940	5.56	23
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	940	5.56	15
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	340	2.01	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	920	5.44	N/A
ALL OTHER HAND WORKERS	310	1.83	N/A
CHEMICAL PLANT & SYSTEM OPERATORS	220	1.30	34
ALL OTHER PLANT AND SYSTEM OPERATORS	140	0.83	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	240	1.42	24
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	120	0.71	21
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.06	N/A
TANK CAR AND TRUCK LOADERS	20	0.12	27
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	140	0.83	28

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1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CHEMICALS AND ALLIED PRODUCTS
SIC = 28
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	130	0.77	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	230	1.36	34
HAND PACKERS AND PACKAGERS	390	2.31	18
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	450	2.66	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PLASTIC MATERIALS & SYNTHETICS
SIC = 282
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,410	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	290	6.58	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	140	3.17	32
ALL OTHER MANAGERS AND ADMINISTRATORS	150	3.40	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	730	16.55	N/A
ACCOUNTANTS AND AUDITORS	40	0.91	20
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.23	31
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.45	N/A
CHEMICAL ENGINEERS	170	3.85	18
ELECTRICAL AND ELECTRONIC ENGINEERS	20	0.45	24
ALL OTHER ENGINEERS	40	0.91	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.45	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	110	2.49	27
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	220	4.99	18
COMPUTER PROGRAMMERS	10	0.23	33
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.45	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	**	0.00	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.23	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	30	0.68	N/A
SALES AND RELATED OCCUPATIONS	160	3.63	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	40	0.91	N/A
SALES ENGINEERS	40	0.91	23
ALL OTHER SALES AND RELATED WORKERS	80	1.81	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	460	10.43	N/A
SECRETARIES	120	2.72	14
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.23	28
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	0.68	34
GENERAL OFFICE CLERKS	40	0.91	26
ALL OTHER OFFICE MACHINE OPERATORS	20	0.45	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	10	0.23	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	0.45	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	80	1.81	18
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	50	1.13	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	90	2.04	N/A
SERVICE OCCUPATIONS	130	2.95	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	40	0.91	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	80	1.81	16
ALL OTHER SERVICE WORKERS	10	0.23	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,640	59.86	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	40	0.91	14

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1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# PLASTIC MATERIALS & SYNTHETICS
SIC = 282
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SUPERVISORS-PRODUCTION & OPERATING WORKERS	260	5.90	30
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.23	34
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.23	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	190	4.31	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	130	2.95	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	130	2.95	30
PRECISION INSTRUMENT REPAIRERS	30	0.68	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.23	N/A
ELECTRICIANS	50	1.13	10
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.45	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.45	N/A
ALL OTHER PRECISION METAL WORKERS	10	0.23	N/A
SHEET METAL WORKERS	10	0.23	N/A
ALL OTHER PRECISION WORKERS	90	2.04	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	190	4.31	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	1,000	22.68	N/A
ALL OTHER HAND WORKERS	10	0.23	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	190	4.31	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	90	2.04	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	40	0.91	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	90	2.04	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	1.13	N/A

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1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SOAP CLEANERS AND TOILET GOODS
SIC = 284
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,700	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	240	8.89	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.37	18
PURCHASING MANAGERS	10	0.37	N/A
INDUSTRIAL PRODUCTION MANAGERS	40	1.48	43
GENERAL MANAGERS AND TOP EXECUTIVES	120	4.44	14
ALL OTHER MANAGERS AND ADMINISTRATORS	70	2.59	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	240	8.89	N/A
ACCOUNTANTS AND AUDITORS	40	1.48	32
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.74	22
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	1.11	N/A
CHEMICAL ENGINEERS	10	0.37	39
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	20	0.74	6
MECHANICAL ENGINEERS	10	0.37	24
ALL OTHER ENGINEERS	20	0.74	N/A
DRAFTERS	10	0.37	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	30	1.11	27
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	40	1.48	20
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.74	N/A
REGISTERED NURSES	10	0.37	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.37	N/A
SALES AND RELATED OCCUPATIONS	170	6.30	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	10	0.37	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	80	2.96	34
ALL OTHER SALES AND RELATED WORKERS	90	3.33	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	510	18.89	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.37	12
SECRETARIES	80	2.96	16
TYPISTS	30	1.11	30
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.37	12
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	1.85	14
PAYROLL AND TIMEKEEPING CLERKS	10	0.37	28
GENERAL OFFICE CLERKS	70	2.59	22
ALL OTHER OFFICE MACHINE OPERATORS	20	0.74	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.37	7
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	1.85	40
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	110	4.07	22
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	90	3.33	N/A
SERVICE OCCUPATIONS	40	1.48	N/A
GUARDS AND WATCH GUARDS	10	0.37	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SOAP CLEANERS AND TOILET GOODS
SIC = 284
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER FOOD SERVICE WORKERS	10	0.37	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.74	15
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,490	55.19	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.74	35
SUPERVISORS-PRODUCTION & OPERATING WORKERS	60	2.22	21
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	20	0.74	19
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.37	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	70	2.59	28
ALL OTHER MACHINERY MAINTENANCE MECHANICS	70	2.59	17
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.74	16
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.37	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	60	2.22	N/A
ELECTRICIANS	20	0.74	13
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.37	N/A
MACHINISTS	30	1.11	40
ALL OTHER PRECISION WORKERS	10	0.37	N/A
BOILER OPERATORS AND TENDERS, LOW PRESSURE	20	0.74	16
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	30	1.11	29
CHEMICAL EQUIPMENT TENDERS	10	0.37	40
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	100	3.70	44
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	350	12.96	19
ALL OTHER MACHINE OPERATORS AND TENDERS	40	1.48	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	10	0.37	N/A
ALL OTHER HAND WORKERS	20	0.74	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.37	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.74	47
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	0.74	37
TANK CAR AND TRUCK LOADERS	10	0.37	27
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	40	1.48	34
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.74	N/A
MACHINE FEEDERS AND OFFBEARERS	10	0.37	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	120	4.44	10
HAND PACKERS AND PACKAGERS	210	7.78	10
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	80	2.96	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAINTS AND ALLIED PRODUCTS
SIC = 285
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,450	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	140	9.66	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	140	9.66	8
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	140	9.66	N/A
ACCOUNTANTS AND AUDITORS	10	0.69	33
ALL OTHER ENGINEERS	10	0.69	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	80	5.52	17
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	40	2.76	20
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	**	0.00	N/A
SALES AND RELATED OCCUPATIONS	90	6.21	N/A
SALES ENGINEERS	20	1.38	31
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	70	4.83	19
ALL OTHER SALES AND RELATED WORKERS	10	0.69	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	330	22.76	N/A
SECRETARIES	50	3.45	15
TYPISTS	10	0.69	24
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	3.45	14
GENERAL OFFICE CLERKS	90	6.21	15
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	1.38	30
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	110	7.59	11
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.69	N/A
SERVICE OCCUPATIONS	10	0.69	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	**	0.00	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.69	28
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	740	51.03	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	60	4.14	12
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	20	1.38	26
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.69	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	2.07	16
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	210	14.48	13
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	240	16.55	18
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.69	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	40	2.76	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	30	2.07	28
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.69	24
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	30	2.07	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	2.76	N/A

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SIC 30

This major group includes establishments manufacturing from natural, synthetic, or reclaimed rubber, gutta percha, balata, or gutta siak, rubber products such as tires, rubber footwear, mechanical rubber goods, heels and soles, flooring, and rubber sundries.

The employment in the rubber and miscellaneous plastics industry, 30,500 jobs, remained nearly unchanged from its 1980 level, 30,600 jobs. In 1983, the industry represented a 4.8 percent share of the state's manufacturing employment, a slight increase over the 4.5 percent share in 1980.

PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

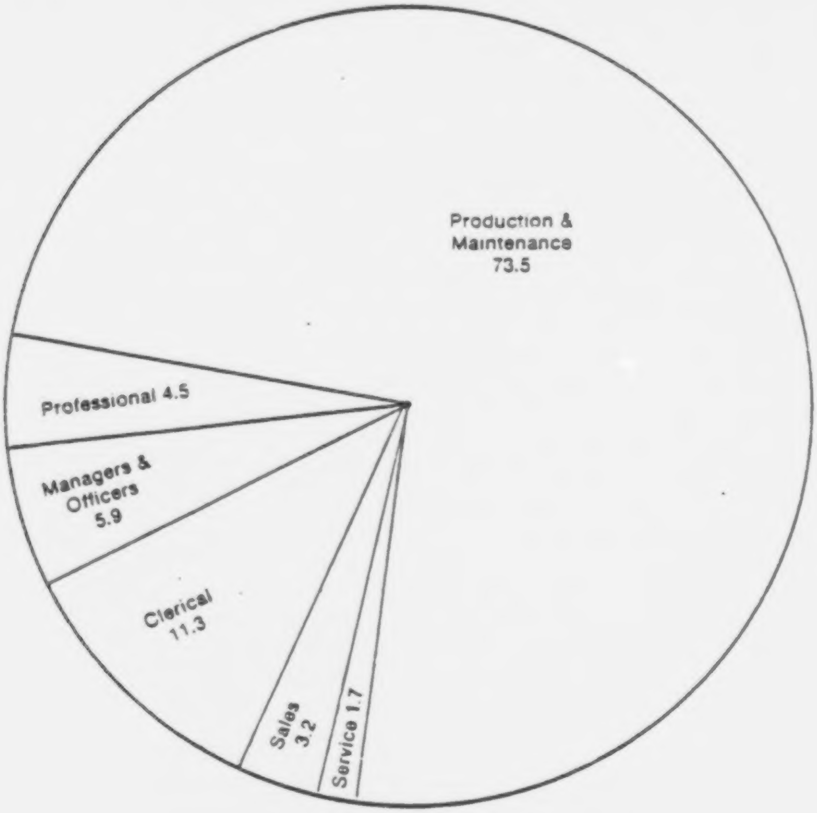
	30	307
TOTAL	100%	100%
Managerial & Administrative Occs.	5.84	6.15
Profess., Paraprofess., Tech., Occs.	4.45	3.72
Sales and Related Occs.	3.21	2.73
Clerical & Admin., Support Occs.	11.30	10.25
Service Occs.	1.66	1.62
Prod., Construc., & Maint., Occs.	73.51	75.48

The large occupations in this industry are predominately in the production and maintenance category with 22,640 or a 73.5 percent share of the industry's employment. The number one occupation is all other metal and plastic machine operators and tenders with 4,630 workers. Other important occupations are all other hand workers, 3,430 workers, and all other laborers with 3,010 workers.

The occupation with the largest number not in the production and maintenance category is 1,180 jobs in the top executive occupation.

RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS (SIC 30)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	All Other Metal and Plastic Machine Operators and Tenders	4,630
2.	All Other Hand Workers	3,430
3.	All Other Helpers, Laborers, and Material Movers, Hand	3,010
4.	All Other Machine Operators and Tenders	3,000
5.	Assemblers and Fabricators except Machine, Electrical, Electronic and Precision Workers	2,000
6.	Supervisors - Production and Operating Workers	1,750
7.	All Other Precision Metal Workers	1,440
8.	All Other Mechanics, Installers, and Repairers	1,400
9.	All Other Metal and Plastic Machine Setters, and Set-up Operators	1,180
10.	General Managers and Top Executives	1,180

These 10 occupational categories make up 75.5% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
RUBBER & MISC. PLASTICS PRODUCTS
SIC = 30
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	30,800	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,800	5.84	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	1,180	3.83	24
ALL OTHER MANAGERS AND ADMINISTRATORS	620	2.01	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,370	4.45	N/A
ACCOUNTANTS AND AUDITORS	230	0.75	30
ALL OTHER FINANCIAL SPECIALISTS	30	0.10	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	170	0.55	N/A
ALL OTHER ENGINEERS	330	1.07	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	100	0.32	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	510	1.66	N/A
SALES AND RELATED OCCUPATIONS	990	3.21	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	560	1.82	35
ALL OTHER SALES AND RELATED WORKERS	430	1.40	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,480	11.30	N/A
SECRETARIES	540	1.75	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	460	1.49	23
GENERAL OFFICE CLERKS	700	2.27	30
ALL OTHER OFFICE MACHINE OPERATORS	140	0.45	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	160	0.52	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	620	2.01	25
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	180	0.58	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	680	2.21	N/A
SERVICE OCCUPATIONS	510	1.66	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	340	1.10	24
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.03	N/A
ALL OTHER SERVICE WORKERS	160	0.52	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	22,640	73.51	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	1,750	5.68	29
MAINTENANCE REPAIRERS, GENERAL UTILITY	580	1.88	34
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	1,400	4.55	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	140	0.45	N/A
ALL OTHER PRECISION METAL WORKERS	1,440	4.68	N/A
ALL OTHER PRECISION WORKERS	60	0.19	N/A
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	10	0.03	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	1,400	4.55	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	4,630	15.03	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	210	0.68	N/A
SHOE SEWING MACHINE OPERATORS AND TENDERS	180	0.58	N/A
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	20	0.06	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
RUBBER & MISC. PLASTICS PRODUCTS
SIC = 30
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	150	0.49	20
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	20	0.06	11
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	770	2.50	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	3,000	9.74	N/A
ALL OTHER HAND WORKERS	3,430	11.14	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	40	0.13	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	60	0.19	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	340	1.10	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	3,010	9.77	N/A

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1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. PLASTICS PRODUCTS
SIC = 307
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	23,410	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,440	6.15	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	110	0.47	N/A
INDUSTRIAL PRODUCTION MANAGERS	110	0.47	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	980	4.19	28
ALL OTHER MANAGERS AND ADMINISTRATORS	250	1.07	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	870	3.72	N/A
ACCOUNTANTS AND AUDITORS	170	0.73	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	110	0.47	N/A
ALL OTHER ENGINEERS	230	0.98	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	70	0.30	N/A
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	140	0.60	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	80	0.34	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	80	0.34	N/A
SALES AND RELATED OCCUPATIONS	640	2.73	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	140	0.60	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	400	1.71	N/A
ALL OTHER SALES AND RELATED WORKERS	110	0.47	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,400	10.25	N/A
SECRETARIES	390	1.67	32
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	300	1.28	N/A
GENERAL OFFICE CLERKS	540	2.31	N/A
ALL OTHER OFFICE MACHINE OPERATORS	80	0.34	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	100	0.43	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	470	2.01	32
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	90	0.38	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	430	1.84	N/A
SERVICE OCCUPATIONS	380	1.62	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	260	1.11	33
ALL OTHER SERVICE WORKERS	120	0.51	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	17,670	75.48	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	1,360	5.81	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	110	0.47	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	130	0.56	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	330	1.41	N/A
MACHINERY MAINTENANCE MECHANICS	330	1.41	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	360	1.54	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	80	0.34	N/A
TOOL AND DIE MAKERS	120	0.51	N/A
MACHINISTS	1,150	4.91	N/A

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1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. PLASTICS PRODUCTS
SIC = 307
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION WORKERS	60	0.26	N/A
EXTRUDING,DRAWING MACH SETTERS & SET-UP OPER.	360	1.54	N/A
MACH FORMING OPER & TENDERS, METAL & PLASTIC	630	2.69	N/A
PLAS MOLDING,CASTING MACH SETTERS,SET-UP OPER	430	1.84	N/A
PLASTIC MOLDING CASTING MACHINE OPER, TENDERS	3,570	15.25	N/A
HEATERS, METAL AND PLASTIC	190	0.81	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	60	0.26	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	100	0.43	N/A
PRINTING PRESS MACHINE OPERATORS AND TENDERS	130	0.56	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	70	0.30	N/A
CUTTING, SLICING MACH OPERATORS AND TENDERS	220	0.94	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	190	0.81	N/A
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	140	0.60	N/A
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	210	0.90	N/A
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	440	1.88	N/A
EXTRUDING, FORMING, PRESSING MACHINE OPERATOR	620	2.65	N/A
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	510	2.18	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	160	0.68	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	1,640	7.01	N/A
ALL OTHER HAND WORKERS	1,250	5.34	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	50	0.21	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	240	1.03	N/A
MACHINE FEEDERS AND OFFBEARERS	580	2.48	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	560	2.39	N/A
HAND PACKERS AND PACKAGERS	970	4.14	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	330	1.41	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

SIC 31

This major group includes establishments engaged in tanning, currying, and finishing hides and skins, and establishments manufacturing finished leather and artificial leather products. Products include footwear (excluding rubber) and footwear components, leather gloves, mittens, luggage, handbags and other leather goods. The leather industry has been a major component of the nondurable goods sector in Massachusetts, but employment in this industry has declined as foreign imports have increased their penetration in this country.

Employment in this industry fell by 4,500 or -21.0 percent from 1980 to 1983 going from 21,400 in 1980 to 16,900 in 1983. This rate of decline exceeds that of -16.7 percent for the nondurables group as a whole. Between 1982 and 1983 alone, 1,700 jobs were lost and this accounted for nearly eighty (80) percent of the total 1980-1983 decline. Whether this most recently recorded large employment drop in this industry is a bellwether for future employment losses remains to be seen.

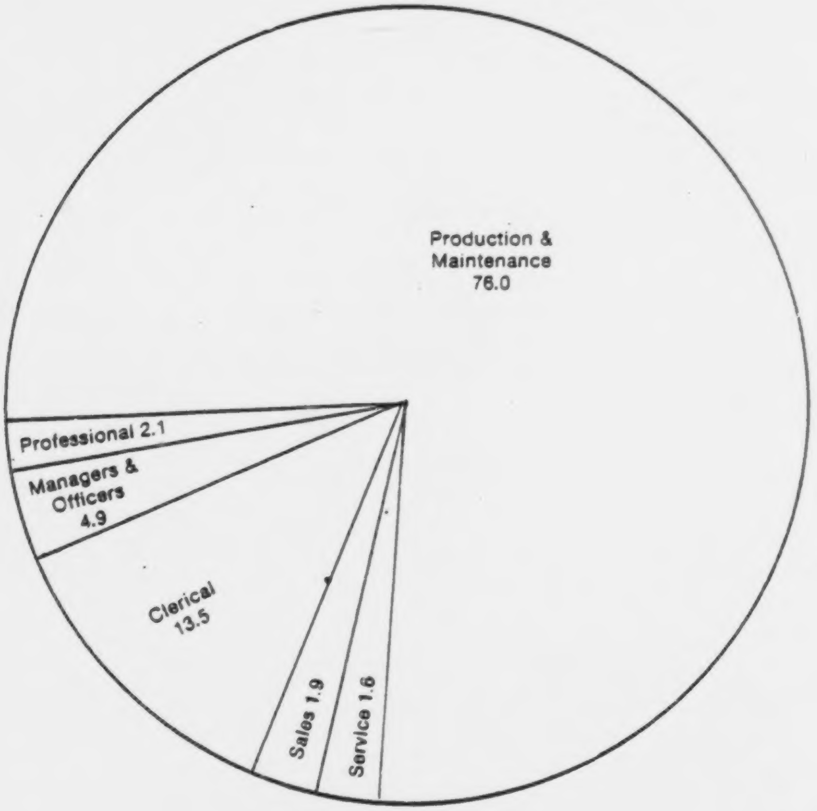
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	31	311	313	314	317
TOTAL	100%	100%	100%	100%	100%
Managerial & Administrative	4.85	7.02	8.90	3.15	5.12
Profess., Paraprofess., Tech.	2.06	2.19	2.54	1.46	3.54
Sales and Related	1.94	1.75	2.97	0.45	6.30
Clerical & Admin, Support	13.52	9.21	11.44	15.73	11.81
Service	1.64	0.88	1.69	2.13	1.18
Prod., Construction & Maint.	76.06	78.95	72.88	76.97	72.44

Jobs in the Production, Construction and Maintenance occupational grouping continue to represent over 70 percent of total industry employment as was the case in the (last) 1980 survey, although there was a job loss of 3,580 workers or -22.2 percent in this occupational grouping over the 1980-1983 time frame.

LEATHER AND LEATHER PRODUCTS (SIC 31)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Shoe and Leather Workers and Repairers - Precision	3,130
2.	Shoe Sewing Machine Operators and Tenders	1,610
3.	All Other Machine Operators and Tenders	740
4.	Cementing and Gluing Machine Operators and Tenders	670
5.	Assemblers and Fabricators-except Machine, Electrical, Electronic, and Precision Workers	650
6.	Sewing Machine Operators, Non-garment	540
7.	Machine Feeders and Offbearers	510
8.	All Other Material Recording, Scheduling, and Distributing Workers	500
9.	Supervisors - Production and Operating Workers	440
10.	Cutters and Trimmers, Hand	

These 10 occupational categories make up 55.8% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
LEATHER & LEATHER PRODUCTS
SIC = 31
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	16,500	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	800	4.85	N/A
FINANCIAL MANAGERS	60	0.36	8
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.18	10
PURCHASING MANAGERS	20	0.12	14
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	80	0.48	19
ADMINISTRATIVE SERVICES MANAGERS	40	0.24	35
INDUSTRIAL PRODUCTION MANAGERS	120	0.73	13
GENERAL MANAGERS AND TOP EXECUTIVES	400	2.42	7
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.30	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	340	2.06	N/A
ACCOUNTANTS AND AUDITORS	80	0.48	16
ALL OTHER FINANCIAL SPECIALISTS	10	0.06	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	40	0.24	13
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.12	15
COST ESTIMATORS	20	0.12	17
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.12	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	30	0.18	14
MECHANICAL ENGINEERS	10	0.06	N/A
ALL OTHER ENGINEERS	10	0.06	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.06	8
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.06	N/A
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	10	0.06	18
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.06	27
COMPUTER PROGRAMMERS	30	0.18	25
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.06	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	30	0.18	17
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.06	N/A
SALES AND RELATED OCCUPATIONS	320	1.94	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	40	0.24	7
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	110	0.67	7
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	140	0.85	11
ALL OTHER SALES AND RELATED WORKERS	30	0.18	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,230	13.52	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	0.42	19
SECRETARIES	210	1.27	14
RECEPTIONIST AND INFORMATION CLERKS	20	0.12	11
TYPISTS	10	0.06	25
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.06	27
FILE CLERKS	20	0.12	26

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LEATHER & LEATHER PRODUCTS
SIC = 31
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	110	0.67	32
PROCUREMENT CLERKS	20	0.12	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	230	1.39	17
PAYROLL AND TIMEKEEPING CLERKS	100	0.61	6
BILLING, COST AND RATE CLERKS	60	0.36	9
GENERAL OFFICE CLERKS	270	1.64	20
BILLING, POSTING, CALCULATING MACH. OPERATORS	10	0.06	28
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	30	0.18	22
DATA ENTRY KEYERS, EXCEPT COMPOSING	80	0.48	36
ALL OTHER OFFICE MACHINE OPERATORS	10	0.06	N/A
SWITCHBOARD OPERATORS	30	0.18	8
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	50	0.30	12
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	20	0.12	14
MARKING CLERKS	10	0.06	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	350	2.12	11
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	500	3.03	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.06	N/A
SERVICE OCCUPATIONS	270	1.64	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	40	0.24	32
GUARDS AND WATCH GUARDS	60	0.36	20
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	140	0.85	6
ELEVATOR OPERATORS	20	0.12	15
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.06	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	12,550	76.06	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.06	17
SUPERVISORS-PRODUCTION & OPERATING WORKERS	440	2.67	6
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.06	20
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	30	0.18	21
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	300	1.82	11
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	10	0.06	N/A
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	40	0.24	10
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	10	0.06	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.06	N/A
MACHINERY MAINTENANCE WORKERS	10	0.06	17
MAINTENANCE REPAIRERS, GENERAL UTILITY	130	0.79	7
CARPENTERS	10	0.06	17
ELECTRICIANS	10	0.06	N/A
MACHINISTS	30	0.18	11
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	20	0.12	17
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	60	0.36	30

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TABLE
OCCUPATIONS OF EMPLOYEES
LEATHER & LEATHER PRODUCTS
SIC = 31
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SHOE & LEATHER WORKERS, REPAIRERS-PRECISION	3,130	18.97	13
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	210	1.27	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	50	0.30	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	80	0.48	N/A
TEXTILE MACHINE OPERATORS AND TENDERS	120	0.73	7
EXTRUDING MACH OPER-TENDER,SYNTH,GLASS FIBERS	20	0.12	N/A
TEXTILE DRAW-OUT MACHINE OPERATORS & TENDERS	20	0.12	N/A
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	10	0.06	19
SEWING MACHINE OPERATORS, GARMENT	120	0.73	32
SEWING MACHINE OPERATORS, NON-GARMENT	540	3.27	14
SHOE SEWING MACHINE OPERATORS AND TENDERS	1,610	9.76	9
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	70	0.42	20
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	220	1.33	17
CUTTING, SLICING MACH OPERATORS AND TENDERS	300	1.82	16
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.06	11
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	50	0.30	27
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	670	4.06	10
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	40	0.24	33
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	20	0.12	11
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	50	0.30	20
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	110	0.67	31
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.12	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	740	4.48	N/A
SEWERS, HAND	230	1.39	23
CUTTERS AND TRIMMERS, HAND	410	2.48	9
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	650	3.94	18
ALL OTHER HAND WORKERS	410	2.48	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.12	20
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	0.12	16
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.06	18
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	0.18	19
MECHANIC AND REPAIRER HELPERS	10	0.06	N/A
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	10	0.06	N/A
MACHINE FEEDERS AND OFFBEARERS	510	3.09	9
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	340	2.06	16
HAND PACKERS AND PACKAGERS	170	1.03	17
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	390	2.36	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LEATHER, TANNING AND FINISHING
SIC = 311
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,280	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	160	7.02	N/A
FINANCIAL MANAGERS	10	0.44	16
INDUSTRIAL PRODUCTION MANAGERS	10	0.44	14
GENERAL MANAGERS AND TOP EXECUTIVES	130	5.70	8
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.44	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	50	2.19	N/A
ACCOUNTANTS AND AUDITORS	20	0.88	22
ALL OTHER FINANCIAL SPECIALISTS	10	0.44	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.44	24
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.44	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.44	N/A
SALES AND RELATED OCCUPATIONS	40	1.75	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	10	0.44	38
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	1.32	19
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	210	9.21	N/A
SECRETARIES	20	0.88	16
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	1.75	9
BILLING, COST AND RATE CLERKS	10	0.44	17
GENERAL OFFICE CLERKS	40	1.75	12
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	10	0.44	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.44	29
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.44	28
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	3.07	8
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.44	N/A
SERVICE OCCUPATIONS	20	0.88	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.88	17
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,800	78.95	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	140	6.14	8
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.44	35
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	40	1.75	19
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	2.63	9
SHOE & LEATHER WORKERS, REPAIRERS-PRECISION	230	10.09	20
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	90	3.95	34
SEWING MACHINE OPERATORS, NON-GARMENT	60	2.63	35
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	30	1.32	29
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	10	0.44	37
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	10	0.44	38
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.44	35

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LEATHER, TANNING AND FINISHING
SIC = 311
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	10	0.44	37
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	10	0.44	49
ALL OTHER MACHINE OPERATORS AND TENDERS	80	3.51	N/A
CUTTERS AND TRIMMERS, HAND	120	5.26	14
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	90	3.95	40
ALL OTHER HAND WORKERS	40	1.75	50
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.44	29
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.44	40
MACHINE FEEDERS AND OFFBEARERS	420	18.42	10
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	150	6.58	25
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	180	7.89	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BOOT & SHOE CUT STOCK & FINDINGS
SIC = 313
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,360	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	210	8.90	N/A
FINANCIAL MANAGERS	20	0.85	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.42	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.42	9
ADMINISTRATIVE SERVICES MANAGERS	10	0.42	N/A
INDUSTRIAL PRODUCTION MANAGERS	10	0.42	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	130	5.51	11
ALL OTHER MANAGERS AND ADMINISTRATORS	30	1.27	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	60	2.54	N/A
ACCOUNTANTS AND AUDITORS	20	0.85	40
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.42	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.42	N/A
ALL OTHER ENGINEERS	10	0.42	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.42	N/A
SALES AND RELATED OCCUPATIONS	70	2.97	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.42	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	20	0.85	15
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	1.27	22
ALL OTHER SALES AND RELATED WORKERS	10	0.42	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	270	11.44	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.42	N/A
SECRETARIES	50	2.12	16
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.42	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	1.69	10
PAYROLL AND TIMEKEEPING CLERKS	10	0.42	N/A
BILLING, COST AND RATE CLERKS	10	0.42	N/A
GENERAL OFFICE CLERKS	40	1.69	23
ALL OTHER OFFICE MACHINE OPERATORS	10	0.42	N/A
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.42	17
MARKING CLERKS	10	0.42	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	2.97	14
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.42	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.42	N/A
SERVICE OCCUPATIONS	40	1.69	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.42	24
GUARDS AND WATCH GUARDS	10	0.42	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.85	N/A
ELEVATOR OPERATORS	10	0.42	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BOOT & SHOE CUT STOCK & FINDINGS
SIC = 313
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,720	72.88	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	70	2.97	11
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.42	16
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	60	2.54	24
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.42	N/A
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	10	0.42	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.42	N/A
MACHINERY MAINTENANCE WORKERS	10	0.42	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	1.27	16
ELECTRICIANS	10	0.42	N/A
MACHINISTS	10	0.42	24
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	20	0.85	22
ALL OTHER PRECISION WOODWORKERS	30	1.27	N/A
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	10	0.42	20
SHOE & LEATHER WORKERS, REPAIRERS-PRECISION	300	12.71	19
PLASTIC MOLDING CASTING MACHINE OPER, TENDERS	10	0.42	17
TEXTILE MACHINE OPERATORS AND TENDERS	100	4.24	N/A
EXTRUDING MACH OPER-TENDER,SYNTH,GLASS FIBERS	20	0.85	N/A
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	10	0.42	19
SEWING MACHINE OPERATORS, NON-GARMENT	10	0.42	23
SHOE SEWING MACHINE OPERATORS AND TENDERS	60	2.54	22
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	90	3.81	29
CUTTING, SLICING MACH OPERATORS AND TENDERS	110	4.66	16
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	90	3.81	20
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.42	17
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	40	1.69	22
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	30	1.27	33
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.42	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	160	6.78	N/A
SEWERS, HAND	50	2.12	42
CUTTERS AND TRIMMERS, HAND	80	3.39	23
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	100	4.24	17
ALL OTHER HAND WORKERS	20	0.85	46
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.42	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.42	9
MACHINE FEEDERS AND OFFBEARERS	60	2.54	30
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	60	2.54	13
HAND PACKERS AND PACKAGERS	20	0.85	20

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1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FOOTWEAR, EXCEPT RUBBER
SIC = 314
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	8,900	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	280	3.15	N/A
FINANCIAL MANAGERS	20	0.22	17
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.22	15
PURCHASING MANAGERS	10	0.11	21
INDUSTRIAL PRODUCTION MANAGERS	70	0.79	23
GENERAL MANAGERS AND TOP EXECUTIVES	70	0.79	26
ALL OTHER MANAGERS AND ADMINISTRATORS	90	1.01	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	130	1.46	N/A
ALL OTHER FINANCIAL SPECIALISTS	20	0.22	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.22	21
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.11	35
COST ESTIMATORS	10	0.11	24
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.11	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	20	0.22	24
DESIGNERS, EXCEPT INTERIOR DESIGNERS	20	0.22	31
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	30	0.34	N/A
SALES AND RELATED OCCUPATIONS	40	0.45	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.11	31
ALL OTHER SALES AND RELATED WORKERS	30	0.34	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,400	15.73	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	60	0.67	24
SECRETARIES	80	0.90	34
RECEPTIONIST AND INFORMATION CLERKS	10	0.11	19
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.11	35
PROCUREMENT CLERKS	20	0.22	30
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	110	1.24	35
PAYROLL AND TIMEKEEPING CLERKS	70	0.79	9
BILLING, COST AND RATE CLERKS	30	0.34	15
GENERAL OFFICE CLERKS	170	1.91	33
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.22	30
ALL OTHER OFFICE MACHINE OPERATORS	80	0.90	N/A
SWITCHBOARD OPERATORS	20	0.22	10
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	30	0.34	20
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	150	1.69	24
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	440	4.94	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	120	1.35	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
FOOTWEAR, EXCEPT RUBBER
SIC = 314
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	190	2.13	N/A
GUARDS AND WATCH GUARDS	50	0.56	24
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	80	0.90	10
ELEVATOR OPERATORS	20	0.22	20
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	50	0.56	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	6,850	76.97	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.11	29
SUPERVISORS-PRODUCTION & OPERATING WORKERS	130	1.46	18
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.11	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	80	0.90	34
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	30	0.34	13
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.11	N/A
MACHINERY MAINTENANCE WORKERS	10	0.11	33
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.34	19
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.11	N/A
SHOE & LEATHER WORKERS, REPAIRERS-PRECISION	2,280	25.62	17
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	80	0.90	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	90	1.01	N/A
SHOE SEWING MACHINE OPERATORS AND TENDERS	1,480	16.63	9
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	70	0.79	32
CUTTING, SLICING MACH OPERATORS AND TENDERS	130	1.46	33
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	40	0.45	35
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	310	3.48	20
ALL OTHER MACHINE OPERATORS AND TENDERS	700	7.87	N/A
CUTTERS AND TRIMMERS, HAND	90	1.01	27
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	400	4.49	28
ALL OTHER HAND WORKERS	420	4.72	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.11	29
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.11	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.11	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	110	1.24	33
HAND PACKERS AND PACKAGERS	80	0.90	35
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	220	2.47	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HANDBAGS & PERSONAL LEATHER GOODS
SIC = 317
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,540	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	130	5.12	N/A
FINANCIAL MANAGERS	10	0.39	20
INDUSTRIAL PRODUCTION MANAGERS	30	1.18	3
GENERAL MANAGERS AND TOP EXECUTIVES	60	2.36	11
ALL OTHER MANAGERS AND ADMINISTRATORS	30	1.18	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	90	3.54	N/A
ACCOUNTANTS AND AUDITORS	10	0.39	12
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.39	17
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.39	N/A
ALL OTHER ENGINEERS	10	0.39	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.39	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	30	1.18	N/A
SALES AND RELATED OCCUPATIONS	160	6.30	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	80	3.15	7
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	60	2.36	20
ALL OTHER SALES AND RELATED WORKERS	30	1.18	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	300	11.81	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.39	25
SECRETARIES	40	1.57	15
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.39	15
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	1.18	18
PAYROLL AND TIMEKEEPING CLERKS	30	1.18	4
GENERAL OFFICE CLERKS	30	1.18	8
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.39	20
ALL OTHER OFFICE MACHINE OPERATORS	10	0.39	N/A
SWITCHBOARD OPERATORS	10	0.39	20
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	1.97	2
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	60	2.36	9
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.79	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.79	N/A
SERVICE OCCUPATIONS	30	1.18	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.79	8
ALL OTHER SERVICE WORKERS	10	0.39	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,840	72.44	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	70	2.76	8
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	110	4.33	5
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.39	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.39	17
ALL OTHER PRECISION METAL WORKERS	20	0.79	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
HANDBAGS & PERSONAL LEATHER GOODS
SIC = 317
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	10	0.39	50
SHOE & LEATHER WORKERS, REPAIRERS-PRECISION	270	10.63	21
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	20	0.79	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	20	0.79	N/A
SEWING MACHINE OPERATORS, GARMENT	70	2.76	40
SEWING MACHINE OPERATORS, NON-GARMENT	450	17.72	16
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	20	0.79	48
CUTTING, SLICING MACH OPERATORS AND TENDERS	50	1.97	8
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	230	9.06	4
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	30	1.18	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	140	5.51	N/A
SEWERS, HAND	40	1.57	23
CUTTERS AND TRIMMERS, HAND	110	4.33	5
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	30	1.18	4
ALL OTHER HAND WORKERS	40	1.57	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.39	29
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	30	1.18	N/A
HAND PACKERS AND PACKAGERS	60	2.36	N/A

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This major group includes establishments engaged in manufacturing flat glass and other glass products, cement, structural clay products, pottery, concrete, cut stone and other similar products.

Since our last survey of this major group in 1980, average annual employment has declined by 14.5 percent. This decline would appear to be directly associated with the slack in housing starts and the slowdown in other construction.

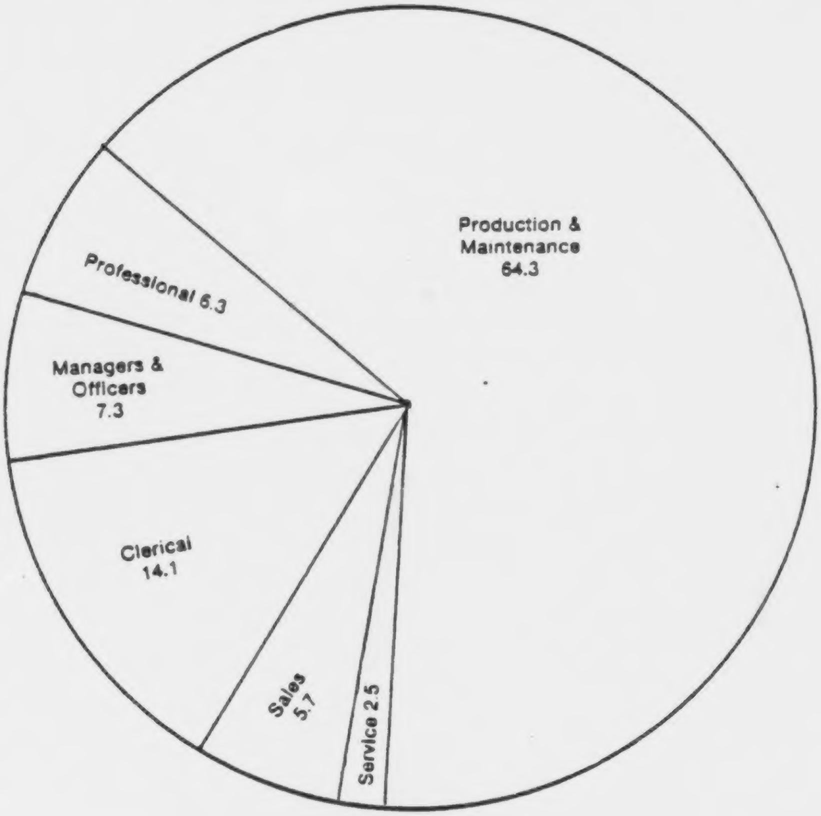
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	32	327	329
TOTAL	100%	100%	100%
Managerial & Admin.	7.26	7.39	8.03
Prof. & Tech. Occs.	6.28	3.11	8.98
Sales Occs.	5.66	4.28	7.24
Clerical Occs.	14.07	11.28	16.54
Service Occs.	2.48	1.56	3.31
Prod. & Maint. Occs.	64.42	72.76	56.06

Production and maintenance occupations account for 64 percent of total employment in this industry. Six of the top ten occupations by rank are in production and maintenance and account for 38 percent of the employment in that category and 24 percent of employment industry wide.

STONE, CLAY, AND GLASS PRODUCTS (SIC 32)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Truck Drivers, Heavy or Tractor Trailer	730
2.	All Other Plant and System Operators	570
3.	Crushing, Grinding, Mixing Machine Operators and Tenders	450
4.	General Managers and Top Executives	360
5.	All Other Machine Operators	340
6.	Supervisors - Production and Operating Workers	330
7.	All Other Precision Workers	320
8.	Sales Representatives, Scientific and Services except Retail Products	300
9.	General Office Clerk	300
10.	Secretaries	260

These 10 occupational categories make up 35.0% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
STONE, CLAY AND GLASS PRODUCTS
SIC = 32
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	11,300	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	820	7.26	N/A
FINANCIAL MANAGERS	100	0.88	19
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	70	0.62	21
PURCHASING MANAGERS	10	0.09	25
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	50	0.44	18
ADMINISTRATIVE SERVICES MANAGERS	30	0.27	26
GENERAL MANAGERS AND TOP EXECUTIVES	360	3.19	13
ALL OTHER MANAGERS AND ADMINISTRATORS	200	1.77	11
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	710	6.28	N/A
ACCOUNTANTS AND AUDITORS	60	0.53	15
BUDGET ANALYSTS	20	0.18	21
ALL OTHER FINANCIAL SPECIALISTS	10	0.09	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	40	0.35	16
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.09	29
COST ESTIMATORS	10	0.09	35
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	0.53	N/A
CHEMICAL ENGINEERS	140	1.24	28
CIVIL ENGINEERS, INCLUDING TRAFFIC	10	0.09	25
ELECTRICAL AND ELECTRONIC ENGINEERS	60	0.53	26
ALL OTHER ENGINEERS	80	0.71	N/A
DRAFTERS	30	0.27	22
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	40	0.35	N/A
ALL OTHER PHYSICAL SCIENTISTS	10	0.09	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.09	N/A
COMPUTER PROGRAMMERS	20	0.18	24
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	100	0.88	N/A
SALES AND RELATED OCCUPATIONS	640	5.66	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	0.44	24
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	300	2.65	19
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	240	2.12	33
ALL OTHER SALES AND RELATED WORKERS	50	0.44	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,590	14.07	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	0.62	26
SECRETARIES	260	2.30	14
STENOGRAPHERS	10	0.09	14
RECEPTIONIST AND INFORMATION CLERKS	10	0.09	17
TYPISTS	10	0.09	14
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.18	29
FILE CLERKS	50	0.44	16

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TABLE
OCCUPATIONS OF EMPLOYEES
STONE, CLAY AND GLASS PRODUCTS
SIC = 32
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	70	0.62	32
PROCUREMENT CLERKS	10	0.09	38
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	190	1.68	13
PAYROLL AND TIMEKEEPING CLERKS	90	0.80	14
BILLING, COST AND RATE CLERKS	40	0.35	32
GENERAL OFFICE CLERKS	300	2.65	17
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.09	9
DATA ENTRY KEYERS, EXCEPT COMPOSING	70	0.62	17
SWITCHBOARD OPERATORS	10	0.09	26
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	50	0.44	17
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	80	0.71	26
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	0.18	18
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	110	0.97	16
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.09	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	100	0.88	N/A
SERVICE OCCUPATIONS	280	2.48	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	20	0.18	25
GUARDS AND WATCH GUARDS	50	0.44	21
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	20	0.18	28
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	170	1.50	14
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.18	N/A
ALL OTHER SERVICE WORKERS	20	0.18	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	7,280	64.42	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	70	0.62	25
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	60	0.53	25
SUPERVISORS-PRODUCTION & OPERATING WORKERS	330	2.92	15
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	40	0.35	29
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	40	0.35	31
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	0.18	33
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	70	0.62	27
MACHINERY MAINTENANCE MECHANICS	140	1.24	16
MILLWRIGHTS	20	0.18	25
MACHINERY MAINTENANCE WORKERS	30	0.27	24
MAINTENANCE REPAIRERS, GENERAL UTILITY	230	2.04	14
AUTOMOTIVE MECHANICS	110	0.97	15
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	60	0.53	17
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	30	0.27	29
CARPENTERS	40	0.35	12
ELECTRICIANS	40	0.35	10
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.09	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
STONE, CLAY AND GLASS PRODUCTS
SIC = 32
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	30	0.27	16
ALL OTHER CONSTRUCTION TRADES WORKERS	110	0.97	N/A
EXTRACTIVE AND RELATED - INCLUDING BLASTERS	20	0.18	44
TOOL AND DIE MAKERS	20	0.18	9
MACHINISTS	80	0.71	13
SHEET METAL WORKERS	40	0.35	18
ALL OTHER PRECISION WORKERS	320	2.83	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	30	0.27	17
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	80	0.71	24
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	20	0.18	29
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	130	1.15	25
MACHINE TOOL CUTTING OPERATORS & TENDERS	190	1.68	28
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	170	1.50	31
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	190	1.68	31
MACH FORMING OPER & TENDERS, METAL & PLASTIC	40	0.35	25
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	180	1.59	15
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	30	0.27	24
CUTTING, SLICING MACH OPERATORS AND TENDERS	140	1.24	11
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	80	0.71	22
SEPARATING,FILTERING & STILL MACHINE OPERATOR	10	0.09	45
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	450	3.98	15
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	20	0.18	30
EXTRUDING, FORMING, PRESSING MACHINE OPERATOR	190	1.68	38
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	80	0.71	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	340	3.01	N/A
WELDERS AND CUTTERS	170	1.50	8
CUTTERS AND TRIMMERS, HAND	40	0.35	42
MOLDERS AND CASTERS, HAND	130	1.15	31
PAINTING, COATING & DECORATING WORKERS- HAND	100	0.88	25
GRINDING & POLISHING WORKERS, HAND	60	0.53	21
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	120	1.06	50
ALL OTHER PLANT AND SYSTEM OPERATORS	570	5.04	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	730	6.46	10
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	110	0.97	31
GRADER, DOZER, AND SCRAPER OPERATORS	10	0.09	16
CRANE AND TOWER OPERATORS	10	0.09	47
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	190	1.68	21
CONVEYOR OPERATORS AND TENDERS	40	0.35	30
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	50	0.44	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
STONE, CLAY AND GLASS PRODUCTS
SIC = 32
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MECHANIC AND REPAIRER HELPERS	230	2.04	31
MACHINE FEEDERS AND OFFBEARERS	120	1.06	25
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	140	1.24	26
HAND PACKERS AND PACKAGERS	30	0.27	39
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	100	0.88	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CONCRETE,GYPSUM & PLASTIC PRODUCTS
SIC = 327
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,570	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	190	7.39	N/A
FINANCIAL MANAGERS	10	0.39	10
GENERAL MANAGERS AND TOP EXECUTIVES	150	5.84	11
ALL OTHER MANAGERS AND ADMINISTRATORS	30	1.17	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	80	3.11	N/A
ACCOUNTANTS AND AUDITORS	20	0.78	16
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.39	17
CIVIL ENGINEERS, INCLUDING TRAFFIC	10	0.39	18
ALL OTHER ENGINEERS	10	0.39	N/A
DRAFTERS	20	0.78	22
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.39	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.39	N/A
SALES AND RELATED OCCUPATIONS	110	4.28	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	30	1.17	38
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	30	1.17	24
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	50	1.95	20
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	290	11.28	N/A
SECRETARIES	40	1.56	18
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	70	2.72	11
PAYROLL AND TIMEKEEPING CLERKS	10	0.39	11
BILLING, COST AND RATE CLERKS	10	0.39	20
GENERAL OFFICE CLERKS	60	2.33	15
SWITCHBOARD OPERATORS	10	0.39	N/A
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	50	1.95	18
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.39	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.39	41
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	1.17	N/A
SERVICE OCCUPATIONS	40	1.56	N/A
GUARDS AND WATCH GUARDS	10	0.39	29
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	30	1.17	28
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,870	72.76	N/A
SUPERVISORS-CCNSTRUCTION & EXTRACTIVE WORKERS	10	0.39	39
SUPERVISORS-PRODUCTION & OPERATING WORKERS	130	5.06	20
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	10	0.39	35
MACHINERY MAINTENANCE MECHANICS	50	1.95	23
MACHINERY MAINTENANCE WORKERS	10	0.39	44
MAINTENANCE REPAIRERS, GENERAL UTILITY	50	1.95	18
AUTOMOTIVE MECHANICS	70	2.72	13
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	30	1.17	18

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** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CONCRETE,GYPSUM & PLASTIC PRODUCTS
SIC = 327
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	20	0.78	42
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.39	N/A
CARPENTERS	10	0.39	17
ALL OTHER CONSTRUCTION TRADES WORKERS	110	4.28	N/A
EXTRACTIVE AND RELATED - INCLUDING BLASTERS	20	0.78	44
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	10	0.39	45
SEPARATING,FILTERING & STILL MACHINE OPERATOR	10	0.39	45
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.39	41
EXTRUDING, FORMING, PRESSING MACHINE OPERATOR	20	0.78	39
WELDERS AND CUTTERS	40	1.56	18
MOLDERS AND CASTERS, HAND	90	3.50	33
ALL OTHER PLANT AND SYSTEM OPERATORS	30	1.17	32
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	670	26.07	10
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	100	3.89	31
GRADER, DOZER, AND SCRAPER OPERATORS	10	0.39	18
CRANE AND TOWER OPERATORS	10	0.39	47
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	110	4.28	22
CONVEYOR OPERATORS AND TENDERS	40	1.56	30
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.78	N/A
MACHINE FEEDERS AND OFFBEARERS	40	1.56	46
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	70	2.72	20
HAND PACKERS AND PACKAGERS	20	0.78	44
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	1.95	42

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TABLE
OCCUPATIONS OF EMPLOYEES
MISC. NONMETALLIC MINERAL PROD.
SIC = 329
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	6,350	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	510	8.03	N/A
FINANCIAL MANAGERS	80	1.26	23
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	60	0.94	22
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	40	0.63	20
ADMINISTRATIVE SERVICES MANAGERS	20	0.31	29
GENERAL MANAGERS AND TOP EXECUTIVES	110	1.73	24
ALL OTHER MANAGERS AND ADMINISTRATORS	180	2.83	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	570	8.98	N/A
ACCOUNTANTS AND AUDITORS	20	0.31	29
BUDGET ANALYSTS	20	0.31	21
ALL OTHER FINANCIAL SPECIALISTS	10	0.16	29
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.31	11
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.16	29
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	0.94	N/A
CHEMICAL ENGINEERS	130	2.05	28
ELECTRICAL AND ELECTRONIC ENGINEERS	60	0.94	27
ALL OTHER ENGINEERS	70	1.10	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.79	N/A
COMPUTER PROGRAMMERS	20	0.31	25
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	100	1.57	N/A
SALES AND RELATED OCCUPATIONS	460	7.24	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	30	0.47	28
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	250	3.94	22
ALL OTHER SALES AND RELATED WORKERS	180	2.83	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,050	16.54	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	60	0.94	28
SECRETARIES	130	2.05	15
STENOGRAPHERS	10	0.16	14
RECEPTIONIST AND INFORMATION CLERKS	10	0.16	24
TYPISTS	10	0.16	17
FILE CLERKS	50	0.79	17
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	60	0.94	36
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	0.94	24
PAYROLL AND TIMEKEEPING CLERKS	80	1.26	16
BILLING, COST AND RATE CLERKS	30	0.47	47
GENERAL OFFICE CLERKS	200	3.15	24
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.16	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	70	1.10	18
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	70	1.10	29

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TABLE
OCCUPATIONS OF EMPLOYEES
MISC. NONMETALLIC MINERAL PROD.
SIC = 329
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.16	20
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	80	1.26	17
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	120	1.89	N/A
SERVICE OCCUPATIONS	210	3.31	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	20	0.31	25
GUARDS AND WATCH GUARDS	30	0.47	14
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	20	0.31	28
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	100	1.57	13
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.31	31
ALL OTHER SERVICE WORKERS	20	0.31	31
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,560	56.06	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	60	0.94	28
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	50	0.79	31
SUPERVISORS-PRODUCTION & OPERATING WORKERS	120	1.89	24
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	40	0.63	31
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	40	0.63	31
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.16	30
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	40	0.63	32
MACHINERY MAINTENANCE MECHANICS	60	0.94	23
MILLWRIGHTS	20	0.31	25
MACHINERY MAINTENANCE WORKERS	20	0.31	31
MAINTENANCE REPAIRERS, GENERAL UTILITY	120	1.89	7
AUTOMOTIVE MECHANICS	50	0.79	31
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	20	0.31	31
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	10	0.16	30
CARPENTERS	20	0.31	17
ELECTRICIANS	40	0.63	10
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.16	N/A
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	30	0.47	16
TOOL AND DIE MAKERS	20	0.31	9
MACHINISTS	70	1.10	10
SHEET METAL WORKERS	40	0.63	18
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	30	0.47	17
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	80	1.26	24
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	20	0.31	29
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	130	2.05	25
MACHINE TOOL CUTTING OPERATORS & TENDERS	180	2.83	29
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	170	2.68	31
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	190	2.99	31
MACH FORMING OPER & TENDERS, METAL & PLASTIC	40	0.63	25

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TABLE
OCCUPATIONS OF EMPLOYEES
MISC. NONMETALLIC MINERAL PROD.
SIC = 329
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	20	0.31	N/A
TEXTILE MACHINE OPERATORS AND TENDERS	30	0.47	N/A
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	140	2.20	17
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	20	0.31	31
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	60	0.94	26
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	310	4.88	20
ALL OTHER MACHINE OPERATORS AND TENDERS	190	2.99	N/A
WELDERS AND CUTTERS	60	0.94	19
CUTTERS AND TRIMMERS, HAND	20	0.31	29
GRINDING & POLISHING WORKERS, HAND	40	0.63	22
ALL OTHER HAND WORKERS	10	0.16	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	550	8.66	N/A
MECHANIC AND REPAIRER HELPERS	230	3.62	31
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	90	1.42	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	0.79	N/A

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SIC 33

This major group includes establishments engaged in the smelting and refining of ferrous and nonferrous metals from ore, pig, or scrap; in the rolling, drawing, and alloying of ferrous and nonferrous metals; in the manufacturing of castings and other basic products of ferrous and nonferrous metals; and in the manufacture of nails, spikes, and insulated wire and cable.

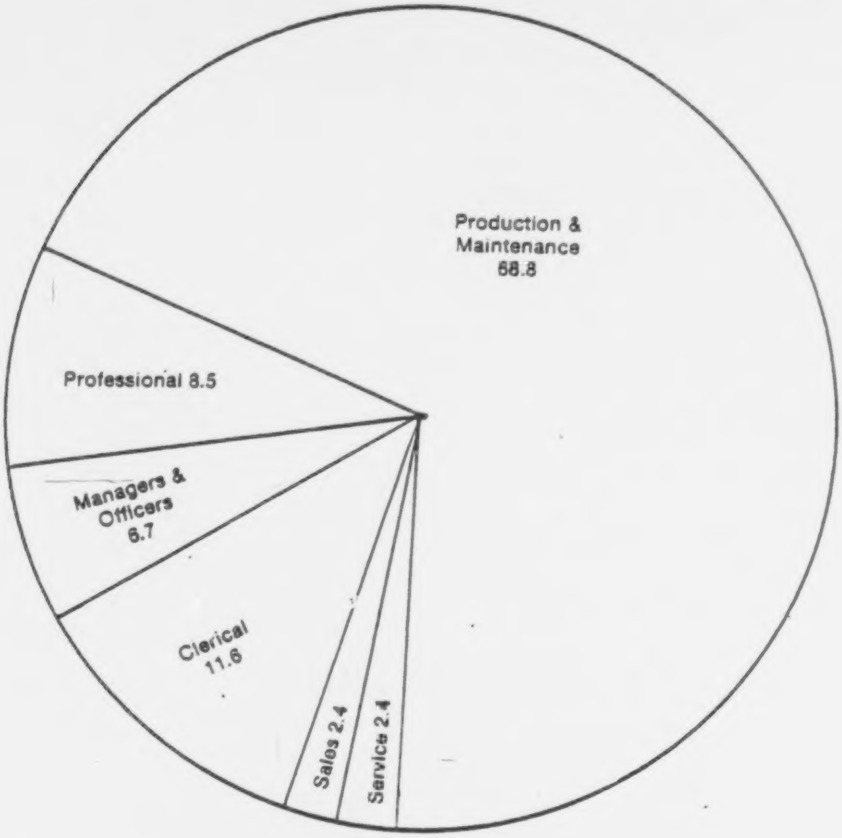
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	33	331	332	335	339
TOTAL	100%	100%	100%	100%	100%
Managerial & Administrative Occs.	6.72	6.21	3.97	6.88	8.41
Profess., Paraprofess., Tech. Occs.	8.44	4.97	1.32	8.28	14.95
Sales and Related Occs.	2.34	4.97	0.66	2.19	1.87
Clerical & Administrative Sup. Occs.	11.56	12.52	7.95	11.88	11.21
Service Occs.	2.34	0.62	0.66	2.50	4.67
Agri., Forestry, Fish., Rel. Occ.	0.08	--	--	--	--
Prod., Constr. and Maint., Occs.	68.52	70.81	84.77	68.44	58.88

The main occupational group of primary metal workers is maintenance and production with 8,770, or just over 68 percent of all workers categorized in this group. The occupation of supervisor - production and operating workers had the top employment with 780 people followed by 740 extruding and drawing machine setters and set-up operators and 620 machine forming operators and tenders. The only other occupation with 500 or more workers was all other metal and plastic machine operators.

PRIMARY METAL INDUSTRIES (SIC 33)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Supervisors - Production and Operating Workers	780
2.	Extruding and Drawing Machine Setters and Set-up Operators, Metal and Plastic	740
3.	Machine Forming Operators and Tenders, Metal and Plastic	620
4.	Assemblers and Fabricators - except Machine, Electrical, Electronic, and Precision	570
5.	All Other Metal and Plastic Machine Operators	500
6.	Precision Foundry Mold and Core Makers	440
7.	General Managers and Top Executives	410
8.	All Other Metal and Plastic Machine Setters and Set-up Operators	400
9.	Secretaries	320
10.	Traffic, Shipping, and Receiving Clerks	270

These 10 occupational categories make up 39.5% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
PRIMARY METAL INDUSTRIES
SIC = 33
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	12,800	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	860	6.72	N/A
FINANCIAL MANAGERS	80	0.63	21
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.23	13
PURCHASING MANAGERS	40	0.31	11
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	80	0.63	22
ADMINISTRATIVE SERVICES MANAGERS	10	0.08	29
INDUSTRIAL PRODUCTION MANAGERS	100	0.78	23
GENERAL MANAGERS AND TOP EXECUTIVES	410	3.20	8
ALL OTHER MANAGERS AND ADMINISTRATORS	110	0.86	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,080	8.44	N/A
ACCOUNTANTS AND AUDITORS	90	0.70	11
BUDGET ANALYSTS	20	0.16	11
ALL OTHER FINANCIAL SPECIALISTS	10	0.08	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	80	0.63	15
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.16	20
COST ESTIMATORS	20	0.16	33
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.16	N/A
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	120	0.94	11
CHEMICAL ENGINEERS	10	0.08	37
ELECTRICAL AND ELECTRONIC ENGINEERS	30	0.23	41
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	60	0.47	21
SAFETY ENGINEERS, EXCEPT MINING	10	0.08	14
MECHANICAL ENGINEERS	80	0.63	14
ALL OTHER ENGINEERS	100	0.78	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	30	0.23	42
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.08	38
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	30	0.23	23
DRAFTERS	50	0.39	27
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	80	0.63	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	20	0.16	35
ALL OTHER PHYSICAL SCIENTISTS	10	0.08	N/A
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	100	0.78	30
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.16	16
COMPUTER PROGRAMMERS	20	0.16	17
COMPUTER PROGRAMMER AIDES	10	0.08	25
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	20	0.16	16
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.08	N/A
SALES AND RELATED OCCUPATIONS	300	2.34	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	0.39	32

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PRIMARY METAL INDUSTRIES
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REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SALES ENGINEERS	40	0.31	19
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	90	0.70	13
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	100	0.78	13
ALL OTHER SALES AND RELATED WORKERS	20	0.16	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,480	11.56	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	40	0.31	22
SECRETARIES	320	2.50	9
RECEPTIONIST AND INFORMATION CLERKS	20	0.16	22
TYPISTS	60	0.47	21
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.16	17
FILE CLERKS	40	0.31	45
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	0.16	18
PROCUREMENT CLERKS	20	0.16	18
STATISTICAL CLERKS	10	0.08	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	180	1.41	8
PAYROLL AND TIMEKEEPING CLERKS	30	0.23	14
BILLING, COST AND RATE CLERKS	40	0.31	16
GENERAL OFFICE CLERKS	150	1.17	10
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.08	18
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.16	29
ALL OTHER OFFICE MACHINE OPERATORS	10	0.08	N/A
SWITCHBOARD OPERATORS	20	0.16	17
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	90	0.70	13
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.08	30
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	0.39	20
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	270	2.11	21
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.16	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.23	N/A
SERVICE OCCUPATIONS	300	2.34	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	50	0.39	41
GUARDS AND WATCH GUARDS	110	0.86	18
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	130	1.02	11
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.08	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	10	0.08	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	10	0.08	35
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	8,770	68.52	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	40	0.31	21
SUPERVISORS-PRODUCTION & OPERATING WORKERS	780	6.09	28
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.08	20
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.08	40

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REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRECISION INSPECTORS, TESTERS, AND GRADERS	220	1.72	14
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	130	1.02	19
MACHINERY MAINTENANCE MECHANICS	190	1.48	15
MILLWRIGHTS	30	0.23	20
MACHINERY MAINTENANCE WORKERS	20	0.16	30
MAINTENANCE REPAIRERS, GENERAL UTILITY	230	1.80	11
PRECISION INSTRUMENT REPAIRERS	40	0.31	51
CARPENTERS	10	0.08	28
ELECTRICIANS	60	0.47	13
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.16	23
TOOL AND DIE MAKERS	140	1.09	6
MACHINISTS	180	1.41	11
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	130	1.02	15
PATTERN AND MODEL MAKERS, METAL	60	0.47	19
SHEET METAL WORKERS	50	0.39	5
ALL OTHER PRECISION METAL WORKERS	10	0.08	N/A
PRECISION FOUNDRY MOLD AND CORE MAKERS	440	3.44	7
ALL OTHER PRECISION WORKERS	20	0.16	N/A
SAW MACH TOOL SETTERS,SET-UP OPER,METAL&PLAST	10	0.08	25
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	20	0.16	26
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	20	0.16	45
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	120	0.94	16
MACHINE TOOL CUTTING OPERATORS & TENDERS	20	0.16	16
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	50	0.39	13
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	100	0.78	18
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	80	0.63	N/A
EXTRUDING,DRAWING MACH SETTERS & SET-UP OPER.	740	5.78	17
ROLL MACH SETTER & SET-UP OPER. METAL PLASTIC	100	0.78	9
MACH FORMING OPER & TENDERS, METAL & PLASTIC	620	4.84	24
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	50	0.39	N/A
COMB MACH TOOL OPER, TENDERS, METAL & PLASTIC	70	0.55	4
METAL MOLDING & CASTING MACH SETTER,SET-UP OP	90	0.70	23
METAL MOLDING & CASTING MACH OPERATOR,TENDER	90	0.70	29
FOUNDRY MOLD ASSEMBLY AND SHAKEOUT WORKERS	110	0.86	37
HEATING EQUIPMENT SETTERS & SET-UP OPERATORS	40	0.31	10
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	210	1.64	10
FURNACE OPERATORS AND TENDERS	170	1.33	10
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	400	3.13	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	500	3.91	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.08	22

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1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# PRIMARY METAL INDUSTRIES
SIC = 33
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	10	0.08	N/A
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	20	0.16	N/A
SEPARATING,FILTERING & STILL MACHINE OPERATOR	20	0.16	N/A
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	60	0.47	29
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	60	0.47	24
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.08	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	180	1.41	N/A
WELDERS AND CUTTERS	220	1.72	36
SOLDERERS AND BRAZERS	30	0.23	29
METAL POURERS & CASTERS, BASIC SHAPES	120	0.94	19
GRINDING & POLISHING WORKERS, HAND	40	0.31	46
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	570	4.45	5
ALL OTHER HAND WORKERS	30	0.23	N/A
STATIONARY ENGINEERS	10	0.08	45
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	100	0.78	36
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	40	0.31	16
CRANE AND TOWER OPERATORS	10	0.08	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	150	1.17	18
MECHANIC AND REPAIRER HELPERS	40	0.31	17
MACHINE FEEDERS AND OFFBEARERS	170	1.33	42
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	240	1.88	17
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	200	1.56	37

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# BLAST FURNACE AND STEEL PRODUCTS
SIC = 331
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,610	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	100	6.21	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.62	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.62	N/A
INDUSTRIAL PRODUCTION MANAGERS	10	0.62	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	60	3.73	3
ALL OTHER MANAGERS AND ADMINISTRATORS	20	1.24	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	80	4.97	N/A
ACCOUNTANTS AND AUDITORS	20	1.24	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.62	N/A
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	20	1.24	12
MECHANICAL ENGINEERS	10	0.62	25
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.62	N/A
DRAFTERS	10	0.62	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.62	49
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	10	0.62	45
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.62	N/A
SALES AND RELATED OCCUPATIONS	80	4.97	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	50	3.11	9
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	1.86	11
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	200	12.42	N/A
SECRETARIES	40	2.48	8
TYPISTS	20	1.24	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.62	35
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	1.86	N/A
PAYROLL AND TIMEKEEPING CLERKS	10	0.62	N/A
BILLING, COST AND RATE CLERKS	10	0.62	N/A
GENERAL OFFICE CLERKS	20	1.24	8
ALL OTHER OFFICE MACHINE OPERATORS	10	0.62	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.62	8
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.62	22
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	1.86	3
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	1.24	N/A
SERVICE OCCUPATIONS	10	0.62	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.62	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,140	70.81	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	100	6.21	1
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	**	0.00	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	30	1.86	9

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BLAST FURNACE AND STEEL PRODUCTS
SIC = 331
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	20	1.24	25
MACHINERY MAINTENANCE MECHANICS	30	1.86	23
MILLWRIGHTS	10	0.62	39
MACHINERY MAINTENANCE WORKERS	10	0.62	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	1.86	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.62	N/A
ELECTRICIANS	10	0.62	20
TOOL AND DIE MAKERS	30	1.86	12
MACHINISTS	50	3.11	17
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	30	1.86	23
SHEET METAL WORKERS	30	1.86	6
SAW MACH TOOL SETTERS,SET-UP OPER,METAL&PLAST	10	0.62	25
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	10	0.62	31
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	10	0.62	24
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	30	1.86	N/A
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	20	1.24	12
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	40	2.48	N/A
EXTRUDING,DRAWING MACH SETTERS & SET-UP OPER.	60	3.73	16
ROLL MACH SETTER & SET-UP OPER. METAL PLASTIC	70	4.35	12
MACH FORMING OPER & TENDERS, METAL & PLASTIC	50	3.11	46
HEATING EQUIPMENT SETTERS & SET-UP OPERATORS	10	0.62	N/A
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	60	3.73	16
FURNACE OPERATORS AND TENDERS	20	1.24	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	30	1.86	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.62	N/A
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	10	0.62	N/A
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	10	0.62	N/A
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	30	1.86	5
WELDERS AND CUTTERS	40	2.48	10
SOLDERERS AND BRAZERS	10	0.62	14
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	40	2.48	9
ALL OTHER HAND WORKERS	20	1.24	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.62	12
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.62	N/A
CRANE AND TOWER OPERATORS	20	1.24	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	1.86	N/A
MACHINE FEEDERS AND OFFBEARERS	40	2.48	10
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	40	2.48	10
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	2.48	46

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
IRON AND STEEL FOUNDRIES
SIC = 332
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,510	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	60	3.97	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	50	3.31	9
ALL OTHER MANAGERS AND ADMINISTRATORS	20	1.32	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	20	1.32	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.66	28
ALL OTHER ENGINEERS	10	0.66	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.66	N/A
SALES AND RELATED OCCUPATIONS	10	0.66	N/A
ALL OTHER SALES AND RELATED WORKERS	10	0.66	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	120	7.95	N/A
SECRETARIES	30	1.99	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	1.99	22
BILLING, COST AND RATE CLERKS	10	0.66	33
GENERAL OFFICE CLERKS	20	1.32	23
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	1.32	11
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.66	N/A
SERVICE OCCUPATIONS	10	0.66	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.66	20
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,280	84.77	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	150	9.93	9
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	**	0.00	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	30	1.99	32
MAINTENANCE REPAIRERS, GENERAL UTILITY	70	4.64	16
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	20	1.32	N/A
PATTERN AND MODEL MAKERS, METAL	20	1.32	20
ALL OTHER PRECISION METAL WORKERS	60	3.97	N/A
PRECISION FOUNDRY MOLD AND CORE MAKERS	250	16.56	12
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	70	4.64	27
METAL MOLDING & CASTING MACH OPERATOR,TENDER	70	4.64	35
FURNACE OPERATORS AND TENDERS	50	3.31	7
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	50	3.31	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	100	6.62	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	50	3.31	N/A
METAL POURERS & CASTERS, BASIC SHAPES	50	3.31	24
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	30	1.99	26
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	1.99	21
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	70	4.64	31
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	30	1.99	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	80	5.30	N/A

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** - Employment less than 10

TABLE
OCCUPATIONS OF EMPLOYEES
NONFERROUS ROLLING DRAWING
SIC = 335
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	6,400	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	440	6.88	N/A
FINANCIAL MANAGERS	50	0.78	33
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.31	20
PURCHASING MANAGERS	20	0.31	23
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	60	0.94	31
INDUSTRIAL PRODUCTION MANAGERS	80	1.25	28
GENERAL MANAGERS AND TOP EXECUTIVES	130	2.03	22
ALL OTHER MANAGERS AND ADMINISTRATORS	80	1.25	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	530	8.28	N/A
ACCOUNTANTS AND AUDITORS	40	0.63	22
BUDGET ANALYSTS	10	0.16	15
ALL OTHER FINANCIAL SPECIALISTS	10	0.16	37
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	30	0.47	21
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.16	35
COST ESTIMATORS	20	0.31	39
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.16	39
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	40	0.63	20
ELECTRICAL AND ELECTRONIC ENGINEERS	30	0.47	47
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	40	0.63	34
SAFETY ENGINEERS, EXCEPT MINING	10	0.16	35
MECHANICAL ENGINEERS	40	0.63	24
ALL OTHER ENGINEERS	10	0.16	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	30	0.47	47
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.16	49
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.16	32
DRAFTERS	20	0.31	22
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.78	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.16	44
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	60	0.94	48
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.31	17
COMPUTER PROGRAMMERS	10	0.16	28
COMPUTER PROGRAMMER AIDES	**	0.00	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.16	26
SALES AND RELATED OCCUPATIONS	140	2.19	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	40	0.63	45
SALES ENGINEERS	20	0.31	26
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	30	0.47	42
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	40	0.63	34

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NONFERROUS ROLLING DRAWING
SIC = 335
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER SALES AND RELATED WORKERS	20	0.31	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	760	11.88	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	30	0.47	30
SECRETARIES	150	2.34	16
RECEPTIONIST AND INFORMATION CLERKS	10	0.16	32
TYPISTS	40	0.63	38
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.31	19
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.16	38
PROCUREMENT CLERKS	10	0.16	29
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	70	1.09	17
PAYROLL AND TIMEKEEPING CLERKS	20	0.31	24
BILLING, COST AND RATE CLERKS	20	0.31	30
GENERAL OFFICE CLERKS	40	0.63	31
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.16	25
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.31	38
ALL OTHER OFFICE MACHINE OPERATORS	10	0.16	N/A
SWITCHBOARD OPERATORS	10	0.16	22
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	70	1.09	18
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	0.31	42
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	150	2.34	36
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.31	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	60	0.94	N/A
SERVICE OCCUPATIONS	160	2.50	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	20	0.31	47
GUARDS AND WATCH GUARDS	60	0.94	29
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	70	1.09	19
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.16	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,380	68.44	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.31	32
SUPERVISORS-PRODUCTION & OPERATING WORKERS	410	6.41	N/A
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.16	20
PRECISION INSPECTORS, TESTERS, AND GRADERS	150	2.34	15
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	50	0.78	45
MACHINERY MAINTENANCE MECHANICS	80	1.25	26
MILLWRIGHTS	20	0.31	15
MAINTENANCE REPAIRERS, GENERAL UTILITY	80	1.25	23
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.16	N/A
CARPENTERS	10	0.16	44
ELECTRICIANS	40	0.63	20

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# TABLE
# OCCUPATIONS OF EMPLOYEES
# NONFERROUS ROLLING DRAWING
SIC = 335
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.31	27
TOOL AND DIE MAKERS	100	1.56	5
MACHINISTS	40	0.63	33
SHEET METAL WORKERS	10	0.16	29
ALL OTHER PRECISION METAL WORKERS	10	0.16	N/A
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	50	0.78	31
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	40	0.63	N/A
EXTRUDING,DRAWING MACH SETTERS & SET-UP OPER.	590	9.22	21
ROLL MACH SETTER & SET-UP OPER. METAL PLASTIC	30	0.47	16
MACH FORMING OPER & TENDERS, METAL & PLASTIC	520	8.13	28
HEATING EQUIPMENT SETTERS & SET-UP OPERATORS	20	0.31	N/A
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	30	0.47	31
FURNACE OPERATORS AND TENDERS	10	0.16	20
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	370	5.78	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	430	6.72	N/A
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	30	0.47	47
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.16	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	160	2.50	N/A
METAL POURERS & CASTERS, BASIC SHAPES	10	0.16	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	480	7.50	5
ALL OTHER HAND WORKERS	140	2.19	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.16	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	0.31	31
ALL OTHER MOTOR VEHICLE OPERATORS	50	0.78	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	70	1.09	36
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	290	4.53	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. PRIMARY METALS PRODUCTS
SIC = 339
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,070	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	90	8.41	N/A
FINANCIAL MANAGERS	10	0.93	N/A
PURCHASING MANAGERS	10	0.93	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.93	N/A
INDUSTRIAL PRODUCTION MANAGERS	10	0.93	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	60	5.61	9
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.93	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	160	14.95	N/A
ACCOUNTANTS AND AUDITORS	20	1.87	7
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.93	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.93	N/A
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	30	2.80	5
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.93	N/A
SAFETY ENGINEERS, EXCEPT MINING	10	0.93	N/A
MECHANICAL ENGINEERS	10	0.93	N/A
ALL OTHER ENGINEERS	70	6.54	N/A
COMPUTER PROGRAMMERS	10	0.93	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.93	N/A
SALES AND RELATED OCCUPATIONS	20	1.87	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.93	N/A
ALL OTHER SALES AND RELATED WORKERS	10	0.93	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	120	11.21	N/A
SECRETARIES	30	2.80	8
TYPISTS	10	0.93	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	10	0.93	20
PAYROLL AND TIMEKEEPING CLERKS	10	0.93	N/A
GENERAL OFFICE CLERKS	20	1.87	5
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.93	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.93	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	1.87	6
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.93	N/A
SERVICE OCCUPATIONS	50	4.67	N/A
GUARDS AND WATCH GUARDS	20	1.87	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	30	2.80	4

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. PRIMARY METALS PRODUCTS
SIC = 339
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	630	58.88	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	30	2.80	21
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.93	25
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	10	0.93	32
MACHINERY MAINTENANCE MECHANICS	50	4.67	3
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.93	31
ELECTRICIANS	10	0.93	N/A
MACHINISTS	30	2.80	N/A
ALL OTHER PRECISION METAL WORKERS	10	0.93	N/A
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	10	0.93	48
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	20	1.87	37
EXTRUDING,DRAWING MACH SETTERS & SET-UP OPER.	30	2.80	6
MACH FORMING OPER & TENDERS, METAL & PLASTIC	50	4.67	N/A
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	50	4.67	N/A
COMB MACH TOOL OPER, TENDERS, METAL & PLASTIC	60	5.61	N/A
FOUNDRY MOLD ASSEMBLY AND SHAKEOUT WORKERS	30	2.80	N/A
HEATING EQUIPMENT SETTERS & SET-UP OPERATORS	10	0.93	33
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	100	9.35	12
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	20	1.87	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	20	1.87	N/A
WELDERS AND CUTTERS	10	0.93	N/A
SOLDERERS AND BRAZERS	10	0.93	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.93	50
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.93	25
MECHANIC AND REPAIRER HELPERS	20	1.87	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	30	2.80	47

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This major group includes establishments engaged in fabricating ferrous and nonferrous metal products such as metal cans, tinware, hand tools, cutlery, general hardware, nonelectric heating apparatus, fabricated structural metal products, metal forgings, metal stampings, ordnance (except vehicles and guided missiles), and a variety of metal and wire products not elsewhere classified.

From 1980 to 1983, employment in the Fabricated Metals industry has declined 7,300 or -13.7 percent going from 53,400 in 1980 to 46,100 in 1983. The employment decline in this industry stands in rather sharp contrast to the small but still positive gain of +0.9 percent over the same time frame for the durables group as a whole, 4,200 jobs representing 81.6 percent of the 1980-1983 employment decline occurred between 1981 and 1982.

PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

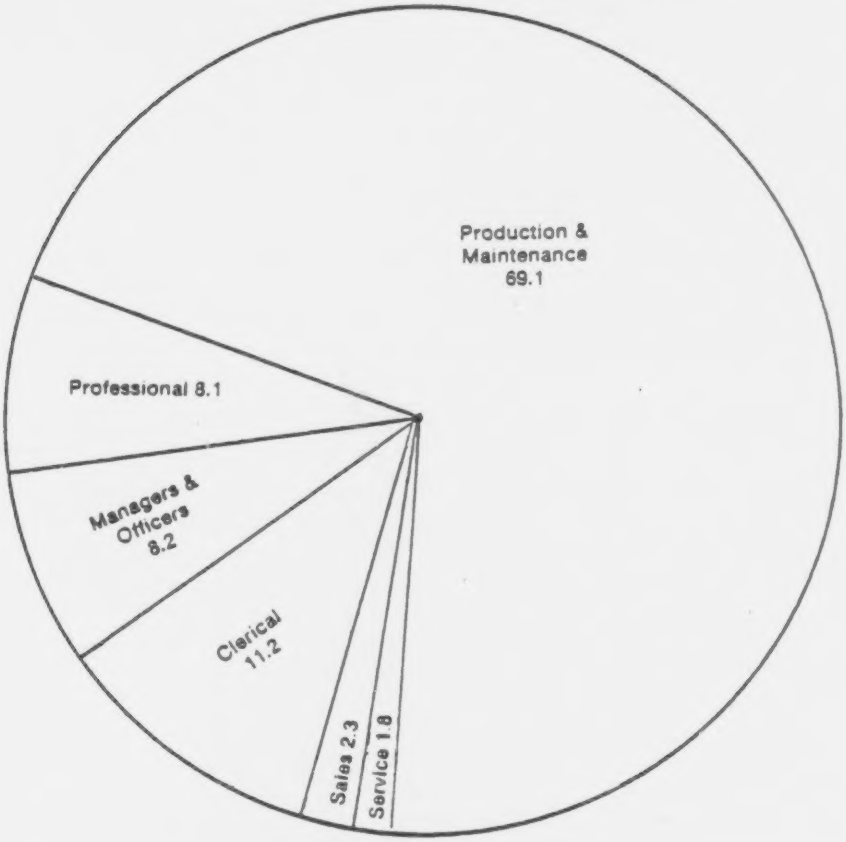
	34	342	344	345	346	347	348
TOTAL	100%	100%	100%	100%	100%	100%	100%
Managerial & Administrative Occs.	8.19	12.94	6.71	6.91	7.08	6.57	4.11
Profess., Paraprofess., Tech. Occs.	8.14	14.09	6.19	4.07	7.64	2.92	6.49
Sales and Related	2.31	1.36	2.99	2.03	1.49	2.68	1.52
Clerical and Administrative Support	11.18	15.03	10.22	8.13	8.38	10.22	7.79
Service	1.81	2.40	0.93	2.03	2.79	1.46	3.25
Prod., Constr. & Maintenance Occs.	69.13	54.28	72.96	77.24	72.63	76.16	76.84

Jobs in the Production, Construction and Maintenance occupational category represent nearly 70 percent of total industry employment ranging from a high of 76.84 percent in SIC 348 (Ordnance and Accessories) to a low of 54.28 percent in SIC 342 (Cutlery, Hand Tools, and General Hardware). The occupational staffing pattern of SIC 342 differs markedly from other industries in the Fabricated Metal Products grouping.

Within the Production, Construction and Maintenance category of the Fabricated Metal Products industry (SIC 34), 1,000 job holders are tool and die makers, 1,690 are machinists, 1,550 are sheet metal workers, 1,130 are machine-tool cutting operators and tenders, 1,910 are machine forming operators and tenders (metal and plastic) and 2,560 are assemblers and fabricators. These 6 occupations alone account for 9,840 jobs or approximately 31 percent of the total production, construction and maintenance occupations.

FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT (SIC 34)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Assemblers and Fabricators except Machine, Electrical, Electronic and Precision	2,560
2.	General Managers and Top Executives	1,920
3.	Machine Forming Operators and Tenders, Metal and Plastic	1,910
4.	Supervisors - Production and Operating Workers	1,820
5.	Machinists	1,690
6.	Sheet Metal Workers	1,550
7.	Secretaries	1,280
8.	Machine Tool Cutting Operators and Tenders	1,130
9.	Production Inspectors, Testers, and Graders	1,020
10.	Tool and Die Makers	1,000

These 10 occupational categories make up 34.7% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
FABRICATED METAL PRODUCTS
SIC = 34
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	45,800	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3,750	8.19	N/A
FINANCIAL MANAGERS	170	0.37	17
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	100	0.22	15
PURCHASING MANAGERS	100	0.22	21
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	270	0.59	14
ADMINISTRATIVE SERVICES MANAGERS	200	0.44	18
INDUSTRIAL PRODUCTION MANAGERS	490	1.07	9
GENERAL MANAGERS AND TOP EXECUTIVES	1,920	4.19	10
ALL OTHER MANAGERS AND ADMINISTRATORS	500	1.09	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	3,730	8.14	N/A
ACCOUNTANTS AND AUDITORS	320	0.70	14
BUDGET ANALYSTS	50	0.11	23
ALL OTHER FINANCIAL SPECIALISTS	30	0.07	40
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	130	0.28	28
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	70	0.15	12
COST ESTIMATORS	100	0.22	19
ALL OTHER MANAGEMENT SUPPORT WORKERS	230	0.50	18
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	30	0.07	14
CHEMICAL ENGINEERS	10	0.02	28
CIVIL ENGINEERS, INCLUDING TRAFFIC	10	0.02	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	70	0.15	44
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	190	0.41	22
SAFETY ENGINEERS, EXCEPT MINING	20	0.04	21
MECHANICAL ENGINEERS	850	1.86	19
ALL OTHER ENGINEERS	120	0.26	7
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	40	0.09	29
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	60	0.13	22
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	60	0.13	36
DRAFTERS	600	1.31	21
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	120	0.26	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	90	0.20	2
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	60	0.13	27
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.02	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	90	0.20	18
COMPUTER PROGRAMMERS	100	0.22	23
COMPUTER PROGRAMMER AIDES	20	0.04	44
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	70	0.15	34
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	60	0.13	17

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TABLE
OCCUPATIONS OF EMPLOYEES
FABRICATED METAL PRODUCTS
SIC = 34
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
DESIGNERS, EXCEPT INTERIOR DESIGNERS	40	0.09	36
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	80	0.17	N/A
SALES AND RELATED OCCUPATIONS	1,060	2.31	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	100	0.22	38
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	330	0.72	31
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	560	1.22	26
ALL OTHER SALES AND RELATED WORKERS	70	0.15	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	5,120	11.18	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	110	0.24	28
SECRETARIES	1,280	2.79	8
RECEPTIONIST AND INFORMATION CLERKS	50	0.11	24
TYPISTS	80	0.17	26
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	70	0.15	16
FILE CLERKS	30	0.07	48
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	130	0.28	25
PROCUREMENT CLERKS	100	0.22	26
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	860	1.88	11
PAYROLL AND TIMEKEEPING CLERKS	130	0.28	15
BILLING, COST AND RATE CLERKS	140	0.31	20
GENERAL OFFICE CLERKS	740	1.62	14
BILLING, POSTING, CALCULATING MACH. OPERATORS	20	0.04	48
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	90	0.20	21
DATA ENTRY KEYERS, EXCEPT COMPOSING	100	0.22	41
ALL OTHER OFFICE MACHINE OPERATORS	30	0.07	N/A
SWITCHBOARD OPERATORS	40	0.09	30
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	190	0.41	27
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	360	0.79	20
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	350	0.76	47
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	60	0.13	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	160	0.35	N/A
SERVICE OCCUPATIONS	830	1.81	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	50	0.11	26
GUARDS AND WATCH GUARDS	120	0.26	22
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	60	0.13	5
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	580	1.27	13
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.02	N/A
ALL OTHER SERVICE WORKERS	10	0.02	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	10	0.02	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	10	0.02	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
FABRICATED METAL PRODUCTS
SIC = 34
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	31,660	69.13	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	70	0.15	26
SUPERVISORS-PRODUCTION & OPERATING WORKERS	1,820	3.97	7
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	30	0.07	43
PRECISION INSPECTORS, TESTERS, AND GRADERS	700	1.53	17
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	1,020	2.23	10
MACHINERY MAINTENANCE MECHANICS	300	0.66	21
MILLWRIGHTS	90	0.20	21
MACHINERY MAINTENANCE WORKERS	160	0.35	16
MAINTENANCE REPAIRERS, GENERAL UTILITY	580	1.27	15
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	20	0.04	35
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	40	0.09	49
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	130	0.28	N/A
CARPENTERS	40	0.09	32
ELECTRICIANS	140	0.31	26
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	50	0.11	15
ALL OTHER CONSTRUCTION TRADES WORKERS	40	0.09	N/A
TOOL AND DIE MAKERS	1,000	2.18	13
MACHINISTS	1,690	3.69	21
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	410	0.90	39
PATTERN AND MODEL MAKERS, METAL	110	0.24	37
PRECISION LAYOUT WORKERS, METAL	220	0.48	37
SHEET METAL WORKERS	1,550	3.38	24
BOILERMAKERS	10	0.02	12
ALL OTHER PRECISION METAL WORKERS	200	0.44	N/A
PRECISION FOUNDRY MOLD AND CORE MAKERS	30	0.07	N/A
ALL OTHER PRECISION WORKERS	60	0.13	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	880	1.92	21
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	290	0.63	44
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	350	0.76	19
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	480	1.05	26
MACHINE TOOL CUTTING OPERATORS & TENDERS	1,130	2.47	19
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	390	0.85	24
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	470	1.03	40
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	310	0.68	27
MACH FORMING OPER & TENDERS, METAL & PLASTIC	1,910	4.17	24
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	300	0.66	25
COMB MACH TOOL OPER, TENDERS, METAL & PLASTIC	610	1.33	44
WELDING MACHINE SETTERS AND SET-UP OPERATORS	570	1.24	28
WELDING MACHINE OPERATORS AND TENDERS	470	1.03	37

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TABLE
OCCUPATIONS OF EMPLOYEES
FABRICATED METAL PRODUCTS
SIC = 34
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
METAL FABRICATORS, STRUCTURAL METAL PRODUCTS	640	1.40	39
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	420	0.92	17
ELECTROLYTIC PLATING, COATING MACH OPERATORS	510	1.11	14
NONELECTROLYTIC PLATING, COATING MACH SETTERS	60	0.13	42
NONELECTROLYTIC PLATING,COATING MACH OPERATOR	130	0.28	31
FURNACE OPERATORS AND TENDERS	50	0.11	9
HEATERS, METAL AND PLASTIC	20	0.04	21
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	710	1.55	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	600	1.31	N/A
WOODWORK MACH SETTER, SET-UP OPER EXC SAWING	10	0.02	N/A
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	30	0.07	22
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	100	0.22	N/A
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.02	25
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	280	0.61	25
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	460	1.00	21
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.02	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	450	0.98	N/A
FITTERS,STRUCTURAL METAL-PRECISION	370	0.81	21
ALL OTHER PRECISION ASSEMBLERS, METAL	400	0.87	N/A
WELDERS AND CUTTERS	290	0.63	32
GRINDING & POLISHING WORKERS, HAND	860	1.88	33
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	2,560	5.59	22
ALL OTHER HAND WORKERS	160	0.35	N/A
STATIONARY ENGINEERS	30	0.07	18
ALL OTHER PLANT AND SYSTEM OPERATORS	20	0.04	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	130	0.28	49
ALL OTHER MOTOR VEHICLE OPERATORS	170	0.37	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.02	N/A
CRANE AND TOWER OPERATORS	30	0.07	39
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	400	0.87	19
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.04	N/A
MECHANIC AND REPAIRER HELPERS	80	0.17	43
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	30	0.07	46
MACHINE FEEDERS AND OFFBEARERS	430	0.94	47
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	690	1.51	17
HAND PACKERS AND PACKAGERS	850	1.86	20
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	880	1.92	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
CUTLERY, HAND TOOLS & HARDWARE
SIC = 342
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	9,580	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,240	12.94	N/A
FINANCIAL MANAGERS	50	0.52	22
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	40	0.42	27
PURCHASING MANAGERS	30	0.31	34
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	150	1.57	11
ADMINISTRATIVE SERVICES MANAGERS	150	1.57	8
INDUSTRIAL PRODUCTION MANAGERS	300	3.13	8
GENERAL MANAGERS AND TOP EXECUTIVES	290	3.03	40
ALL OTHER MANAGERS AND ADMINISTRATORS	230	2.40	15
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,350	14.09	N/A
ACCOUNTANTS AND AUDITORS	80	0.84	23
BUDGET ANALYSTS	30	0.31	N/A
ALL OTHER FINANCIAL SPECIALISTS	20	0.21	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.21	22
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	40	0.42	15
COST ESTIMATORS	20	0.21	35
ALL OTHER MANAGEMENT SUPPORT WORKERS	150	1.57	13
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	10	0.10	40
ELECTRICAL AND ELECTRONIC ENGINEERS	20	0.21	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	70	0.73	24
SAFETY ENGINEERS, EXCEPT MINING	10	0.10	40
ALL OTHER ENGINEERS	310	3.24	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	10	0.10	14
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	20	0.21	40
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	30	0.31	26
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	170	1.77	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	80	0.84	N/A
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	30	0.31	44
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.10	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	60	0.63	9
COMPUTER PROGRAMMERS	40	0.42	23
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	60	0.63	39
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.10	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	20	0.21	34
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.10	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	40	0.42	N/A
SALES AND RELATED OCCUPATIONS	130	1.36	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.21	N/A
ALL OTHER SALES AND RELATED WORKERS	110	1.15	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
CUTLERY, HAND TOOLS & HARDWARE
SIC = 342
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,440	15.03	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.21	N/A
SECRETARIES	400	4.18	13
RECEPTIONIST AND INFORMATION CLERKS	10	0.10	42
TYPISTS	20	0.21	29
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	30	0.31	24
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	0.52	46
PROCUREMENT CLERKS	30	0.31	13
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	150	1.57	42
PAYROLL AND TIMEKEEPING CLERKS	30	0.31	37
BILLING, COST AND RATE CLERKS	50	0.52	21
GENERAL OFFICE CLERKS	150	1.57	47
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.42	25
ALL OTHER OFFICE MACHINE OPERATORS	40	0.42	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	30	0.31	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	150	1.57	34
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	100	1.04	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	130	1.36	N/A
SERVICE OCCUPATIONS	230	2.40	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.10	N/A
GUARDS AND WATCH GUARDS	40	0.42	N/A
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	40	0.42	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	140	1.46	47
ALL OTHER SERVICE WORKERS	10	0.10	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,200	54.28	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	250	2.61	27
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.10	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	70	0.73	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	360	3.76	18
MACHINERY MAINTENANCE MECHANICS	110	1.15	23
MACHINERY MAINTENANCE WORKERS	30	0.31	37
MAINTENANCE REPAIRERS, GENERAL UTILITY	130	1.36	46
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	30	0.31	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	70	0.73	N/A
TOOL AND DIE MAKERS	260	2.71	37
ALL OTHER PRECISION METAL WORKERS	900	9.39	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	540	5.64	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	1,030	10.75	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	10	0.10	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	110	1.15	N/A

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CUTLERY, HAND TOOLS & HARDWARE
SIC = 342
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION ASSEMBLERS, METAL	10	0.10	N/A
ALL OTHER HAND WORKERS	960	10.02	N/A
STATIONARY ENGINEERS	20	0.21	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	**	0.00	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.10	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	30	0.31	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	70	0.73	N/A
HAND PACKERS AND PACKAGERS	160	1.67	34
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	60	0.63	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
STRUCTURAL METAL PRODUCTS
SIC = 344
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	9,690	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	650	6.71	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.10	N/A
PURCHASING MANAGERS	20	0.21	40
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.21	23
ADMINISTRATIVE SERVICES MANAGERS	10	0.10	N/A
INDUSTRIAL PRODUCTION MANAGERS	20	0.21	21
GENERAL MANAGERS AND TOP EXECUTIVES	540	5.57	12
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.52	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	600	6.19	N/A
ACCOUNTANTS AND AUDITORS	80	0.83	31
COST ESTIMATORS	20	0.21	44
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.31	N/A
MECHANICAL ENGINEERS	180	1.86	35
ALL OTHER ENGINEERS	40	0.41	N/A
DRAFTERS	210	2.17	30
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.21	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.21	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.10	N/A
SALES AND RELATED OCCUPATIONS	290	2.99	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.10	14
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	90	0.93	39
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	170	1.75	50
ALL OTHER SALES AND RELATED WORKERS	30	0.31	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	990	10.22	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.10	17
SECRETARIES	320	3.30	15
RECEPTIONIST AND INFORMATION CLERKS	10	0.10	N/A
TYPISTS	10	0.10	23
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.10	17
PROCUREMENT CLERKS	10	0.10	42
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	240	2.48	16
BILLING, COST AND RATE CLERKS	20	0.21	47
GENERAL OFFICE CLERKS	240	2.48	20
ALL OTHER OFFICE MACHINE OPERATORS	30	0.31	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	10	0.10	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	0.21	23
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.10	34
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	0.31	49
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.21	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
STRUCTURAL METAL PRODUCTS
SIC = 344
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	90	0.93	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	80	0.83	26
ALL OTHER SERVICE WORKERS	10	0.10	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	7,070	72.96	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	440	4.54	11
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.10	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	90	0.93	33
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	90	0.93	43
ALL OTHER MACHINERY MAINTENANCE MECHANICS	20	0.21	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	0.62	31
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	10	0.10	44
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.10	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	120	1.24	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	30	0.31	N/A
TOOL AND DIE MAKERS	50	0.52	35
MACHINISTS	200	2.06	44
PRECISION LAYOUT WORKERS, METAL	180	1.86	44
SHEET METAL WORKERS	1,380	14.24	26
PRECISION WOODWORKERS	10	0.10	N/A
PRECISION FOUNDRY MOLD AND CORE MAKERS	30	0.31	N/A
ALL OTHER PRECISION WORKERS	10	0.10	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	30	0.31	33
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	40	0.41	N/A
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	90	0.93	41
MACHINE TOOL CUTTING OPERATORS & TENDERS	60	0.62	43
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	160	1.65	39
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	250	2.58	44
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	140	1.44	28
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	10	0.10	35
WELDING MACHINE SETTERS AND SET-UP OPERATORS	350	3.61	31
WELDING MACHINE OPERATORS AND TENDERS	290	2.99	40
METAL FABRICATORS, STRUCTURAL METAL PRODUCTS	580	5.99	40
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	20	0.21	N/A
FURNACE OPERATORS AND TENDERS	20	0.21	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	150	1.55	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	340	3.51	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	90	0.93	50
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	10	0.10	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	110	1.14	48
FITTERS,STRUCTURAL METAL-PRECISION	130	1.34	41

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TABLE
OCCUPATIONS OF EMPLOYEES
STRUCTURAL METAL PRODUCTS
SIC = 344
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
WELDERS AND CUTTERS	160	1.65	29
GRINDING & POLISHING WORKERS, HAND	220	2.27	47
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	610	6.30	43
ALL OTHER HAND WORKERS	10	0.10	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.10	48
ALL OTHER MOTOR VEHICLE OPERATORS	30	0.31	N/A
CRANE AND TOWER OPERATORS	10	0.10	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	80	0.83	38
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	150	1.55	33
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	50	0.52	N/A
HAND PACKERS AND PACKAGERS	110	1.14	48
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	0.52	58

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SCREW MACHINE PRODUCTS, BOLTS ETC.
SIC = 345
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,460	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	170	6.91	N/A
FINANCIAL MANAGERS	10	0.41	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	160	6.50	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	100	4.07	N/A
ACCOUNTANTS AND AUDITORS	10	0.41	13
COST ESTIMATORS	10	0.41	24
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.41	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.41	N/A
MECHANICAL ENGINEERS	40	1.63	24
DRAFTERS	20	0.81	18
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.41	N/A
SALES AND RELATED OCCUPATIONS	50	2.03	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.41	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	10	0.41	33
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	1.22	13
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	200	8.13	N/A
SECRETARIES	50	2.03	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	2.03	12
BILLING, COST AND RATE CLERKS	10	0.41	45
GENERAL OFFICE CLERKS	50	2.03	16
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.41	14
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.41	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.41	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.81	N/A
SERVICE OCCUPATIONS	50	2.03	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.41	47
GUARDS AND WATCH GUARDS	10	0.41	14
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	30	1.22	18
ALL OTHER SERVICE WORKERS	10	0.41	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,900	77.24	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	110	4.47	13
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.41	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	60	2.44	25
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	40	1.63	11
MACHINERY MAINTENANCE MECHANICS	10	0.41	11
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	1.22	13
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.41	N/A
TOOL AND DIE MAKERS	70	2.85	10
MACHINISTS	330	13.41	13

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TABLE
OCCUPATIONS OF EMPLOYEES
SCREW MACHINE PRODUCTS, BOLTS ETC.
SIC = 345
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	20	0.81	20
ALL OTHER PRECISION METAL WORKERS	10	0.41	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	230	9.35	14
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	20	0.81	14
MACHINE TOOL CUTTING OPERATORS & TENDERS	210	8.54	26
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	20	0.81	34
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	10	0.41	36
MACH FORMING OPER & TENDERS, METAL & PLASTIC	30	1.22	39
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	70	2.85	17
COMB MACH TOOL OPER, TENDERS, METAL & PLASTIC	140	5.69	25
WELDING MACHINE SETTERS AND SET-UP OPERATORS	10	0.41	46
SOLDER,BRAZING MACH SETTER, SET-UP OPERATORS	10	0.41	N/A
SOLDERING,BRAZING MACH OPERATORS AND TENDERS	10	0.41	N/A
ELECTROLYTIC PLATING, COATING MACH OPERATORS	10	0.41	37
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	60	2.44	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.41	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.41	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	10	0.41	N/A
GRINDING & POLISHING WORKERS, HAND	20	0.81	28
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	110	4.47	28
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.41	48
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.81	22
MACHINE FEEDERS AND OFFBEARERS	30	1.22	39
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	60	2.44	13
HAND PACKERS AND PACKAGERS	60	2.44	17
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	2.03	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
FORGINGS AND STAMPINGS
SIC = 346
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	5,370	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	380	7.08	N/A
FINANCIAL MANAGERS	20	0.37	5
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.37	14
PURCHASING MANAGERS	10	0.19	22
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.37	13
INDUSTRIAL PRODUCTION MANAGERS	60	1.12	4
GENERAL MANAGERS AND TOP EXECUTIVES	170	3.17	13
ALL OTHER MANAGERS AND ADMINISTRATORS	80	1.49	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	410	7.64	N/A
ACCOUNTANTS AND AUDITORS	30	0.56	9
ALL OTHER FINANCIAL SPECIALISTS	10	0.19	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	30	0.56	32
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.19	20
COST ESTIMATORS	10	0.19	34
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.37	37
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	20	0.37	5
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.19	11
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	50	0.93	11
SAFETY ENGINEERS, EXCEPT MINING	10	0.19	28
MECHANICAL ENGINEERS	40	0.74	23
ALL OTHER ENGINEERS	20	0.37	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	10	0.19	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	20	0.37	N/A
DRAFTERS	30	0.56	12
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.93	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.19	N/A
COMPUTER PROGRAMMERS	10	0.19	11
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	20	0.37	6
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.19	20
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.19	N/A
SALES AND RELATED OCCUPATIONS	80	1.49	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	30	0.56	25
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	40	0.74	39
ALL OTHER SALES AND RELATED WORKERS	**	0.00	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	450	8.38	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.37	23
SECRETARIES	110	2.05	14
STENOGRAPHERS	10	0.19	N/A
RECEPTIONIST AND INFORMATION CLERKS	10	0.19	22

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TABLE
OCCUPATIONS OF EMPLOYEES
FORGINGS AND STAMPINGS
SIC = 346
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TYPISTS	10	0.19	17
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.19	12
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.19	14
PROCUREMENT CLERKS	10	0.19	18
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	1.12	19
PAYROLL AND TIMEKEEPING CLERKS	20	0.37	16
BILLING, COST AND RATE CLERKS	10	0.19	17
GENERAL OFFICE CLERKS	40	0.74	28
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.19	16
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.19	14
ALL OTHER OFFICE MACHINE OPERATORS	10	0.19	N/A
SWITCHBOARD OPERATORS	10	0.19	18
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	30	0.56	14
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	0.93	19
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	0.37	14
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.19	N/A
SERVICE OCCUPATIONS	150	2.79	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	20	0.37	45
GUARDS AND WATCH GUARDS	30	0.56	5
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	90	1.68	14
ALL OTHER SERVICE WORKERS	10	0.19	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,900	72.63	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.37	26
SUPERVISORS-PRODUCTION & OPERATING WORKERS	200	3.72	14
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.19	20
PRECISION INSPECTORS, TESTERS, AND GRADERS	100	1.86	9
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	130	2.42	9
MACHINERY MAINTENANCE MECHANICS	20	0.37	28
MILLWRIGHTS	50	0.93	14
MACHINERY MAINTENANCE WORKERS	40	0.74	13
MAINTENANCE REPAIRERS, GENERAL UTILITY	80	1.49	23
AUTOMOTIVE MECHANICS	10	0.19	N/A
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.19	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	20	0.37	N/A
ELECTRICIANS	20	0.37	4
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.37	N/A
TOOL AND DIE MAKERS	360	6.70	16
MACHINISTS	100	1.86	12
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	30	0.56	19
PATTERN AND MODEL MAKERS, METAL	10	0.19	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
FORGINGS AND STAMPINGS
SIC = 346
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRECISION LAYOUT WORKERS, METAL	20	0.37	41
BOILERMAKERS	10	0.19	N/A
ALL OTHER PRECISION METAL WORKERS	160	2.98	N/A
ALL OTHER PRECISION WORKERS	10	0.19	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	20	0.37	33
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	10	0.19	19
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	10	0.19	49
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	70	1.30	40
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	100	1.86	29
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	110	2.05	28
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	60	1.12	19
FORG MACH SETTER & SET-UP OPER, METAL PLASTIC	130	2.42	26
MACH FORMING OPER & TENDERS, METAL & PLASTIC	770	14.34	25
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	20	0.37	29
COMB MACH TOOL OPER, TENDERS, METAL & PLASTIC	90	1.68	9
WELDING MACHINE SETTERS AND SET-UP OPERATORS	20	0.37	35
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	10	0.19	N/A
ELECTROLYTIC PLATING, COATING MACH OPERATORS	20	0.37	43
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	10	0.19	N/A
FURNACE OPERATORS AND TENDERS	10	0.19	N/A
HEATERS, METAL AND PLASTIC	20	0.37	21
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	60	1.12	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	110	2.05	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.19	45
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	120	2.23	49
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	10	0.19	19
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.19	20
WELDERS AND CUTTERS	40	0.74	9
GRINDING & POLISHING WORKERS, HAND	30	0.56	6
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	180	3.35	25
ALL OTHER HAND WORKERS	40	0.74	N/A
STATIONARY ENGINEERS	10	0.19	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.37	47
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.19	14
ALL OTHER MOTOR VEHICLE OPERATORS	40	0.74	N/A
CRANE AND TOWER OPERATORS	10	0.19	10
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	60	1.12	19
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.19	N/A
MECHANIC AND REPAIRER HELPERS	10	0.19	14
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	30	0.56	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
FORGINGS AND STAMPINGS
SIC = 346
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MACHINE FEEDERS AND OFFBEARERS	10	0.19	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	60	1.12	19
HAND PACKERS AND PACKAGERS	70	1.30	37
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	100	1.86	31

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
METAL INDUSTRIES, N.E.C.
SIC = 347
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,110	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	270	6.57	N/A
FINANCIAL MANAGERS	10	0.24	32
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.24	32
INDUSTRIAL PRODUCTION MANAGERS	10	0.24	28
GENERAL MANAGERS AND TOP EXECUTIVES	240	5.84	7
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.24	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	120	2.92	N/A
ACCOUNTANTS AND AUDITORS	30	0.73	26
COST ESTIMATORS	10	0.24	32
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.24	N/A
MECHANICAL ENGINEERS	20	0.49	21
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.49	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.24	24
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	30	0.73	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.24	N/A
SALES AND RELATED OCCUPATIONS	110	2.68	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	50	1.22	20
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	60	1.46	18
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	420	10.22	N/A
SECRETARIES	120	2.92	11
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	130	3.16	11
BILLING, COST AND RATE CLERKS	10	0.24	29
GENERAL OFFICE CLERKS	70	1.70	17
ALL OTHER OFFICE MACHINE OPERATORS	10	0.24	N/A
SWITCHBOARD OPERATORS	10	0.24	17
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	0.49	29
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	0.73	25
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	0.97	N/A
SERVICE OCCUPATIONS	60	1.46	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	60	1.46	11
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,130	76.16	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	250	6.08	10
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.24	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	90	2.19	32
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	90	2.19	25
MACHINERY MAINTENANCE MECHANICS	30	0.73	16
MACHINERY MAINTENANCE WORKERS	10	0.24	31
MAINTENANCE REPAIRERS, GENERAL UTILITY	100	2.43	12
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.24	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
METAL INDUSTRIES, N.E.C.
SIC = 347
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.24	N/A
ALL OTHER PRECISION METAL WORKERS	110	2.68	N/A
ALL OTHER PRECISION WORKERS	30	0.73	N/A
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	50	1.22	34
WELDING MACHINE OPERATORS AND TENDERS	10	0.24	34
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	360	8.76	19
ELECTROLYTIC PLATING, COATING MACH OPERATORS	440	10.71	16
NONELECTROLYTIC PLATING,COATING MACH OPERATOR	90	2.19	30
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	120	2.92	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	100	2.43	N/A
ALL OTHER PRINTING PRESS SETTERS, SET-UP OPER	30	0.73	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	20	0.49	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	90	2.19	26
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	250	6.08	25
ALL OTHER MACHINE OPERATORS AND TENDERS	60	1.46	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	30	0.73	N/A
GRINDING & POLISHING WORKERS, HAND	150	3.65	26
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	70	1.70	34
ALL OTHER HAND WORKERS	30	0.73	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	20	0.49	35
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	30	0.73	26
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.24	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	50	1.22	26
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	90	2.19	19
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	70	1.70	N/A
HAND PACKERS AND PACKAGERS	240	5.84	20

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TABLE
OCCUPATIONS OF EMPLOYEES
ORDNANCE AND ACCESSORIES
SIC = 348
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,620	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	190	4.11	N/A
FINANCIAL MANAGERS	20	0.43	5
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.22	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.43	14
INDUSTRIAL PRODUCTION MANAGERS	60	1.30	5
GENERAL MANAGERS AND TOP EXECUTIVES	20	0.43	7
ALL OTHER MANAGERS AND ADMINISTRATORS	60	1.30	5
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	300	6.49	N/A
ACCOUNTANTS AND AUDITORS	10	0.22	N/A
ALL OTHER FINANCIAL SPECIALISTS	10	0.22	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.22	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.22	14
COST ESTIMATORS	10	0.22	20
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.22	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	30	0.65	10
SAFETY ENGINEERS, EXCEPT MINING	10	0.22	N/A
MECHANICAL ENGINEERS	80	1.73	4
ALL OTHER ENGINEERS	10	0.22	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	20	0.43	N/A
DRAFTERS	40	0.87	10
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	30	0.65	10
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.22	N/A
COMPUTER PROGRAMMERS	10	0.22	N/A
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	10	0.22	20
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.22	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.22	N/A
SALES AND RELATED OCCUPATIONS	70	1.52	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	60	1.30	18
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	10	0.22	18
ALL OTHER SALES AND RELATED WORKERS	10	0.22	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	360	7.79	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.43	10
SECRETARIES	50	1.08	8
RECEPTIONIST AND INFORMATION CLERKS	10	0.22	17
TYPISTS	10	0.22	14
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.22	N/A
FILE CLERKS	10	0.22	14
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	0.43	14
PROCUREMENT CLERKS	10	0.22	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
ORDNANCE AND ACCESSORIES
SIC = 348
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	20	0.43	7
PAYROLL AND TIMEKEEPING CLERKS	40	0.87	14
BILLING, COST AND RATE CLERKS	10	0.22	N/A
GENERAL OFFICE CLERKS	20	0.43	8
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.22	14
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.43	6
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	0.43	8
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.22	19
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	60	1.30	7
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	0.43	14
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.22	N/A
SERVICE OCCUPATIONS	150	3.25	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.22	N/A
GUARDS AND WATCH GUARDS	40	0.87	8
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	20	0.43	19
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	90	1.95	12
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,550	76.84	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	40	0.87	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	190	4.11	8
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.22	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	170	3.68	10
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	220	4.76	19
MACHINERY MAINTENANCE MECHANICS	40	0.87	11
MACHINERY MAINTENANCE WORKERS	20	0.43	6
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.87	27
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.22	N/A
CARPENTERS	10	0.22	13
ELECTRICIANS	30	0.65	20
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.43	18
TOOL AND DIE MAKERS	90	1.95	6
MACHINISTS	80	1.73	17
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	70	1.52	12
ALL OTHER PRECISION METAL WORKERS	170	3.68	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	320	6.93	24
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	20	0.43	39
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	280	6.06	19
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	40	0.87	3
MACHINE TOOL CUTTING OPERATORS & TENDERS	520	11.26	15
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	10	0.22	29
FORG MACH SETTER & SET-UP OPER, METAL PLASTIC	20	0.43	10

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TABLE
OCCUPATIONS OF EMPLOYEES
ORDNANCE AND ACCESSORIES
SIC = 348
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MACH FORMING OPER & TENDERS, METAL & PLASTIC	90	1.95	27
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	40	0.87	12
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	30	0.65	34
ELECTROLYTIC PLATING, COATING MACH OPERATORS	20	0.43	19
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	10	0.22	16
FURNACE OPERATORS AND TENDERS	20	0.43	20
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	30	0.65	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.22	N/A
WOODWORK MACH SETTER, SET-UP OPER EXC SAWING	10	0.22	N/A
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	30	0.65	22
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.22	28
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	20	0.43	19
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.22	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.22	N/A
FITTERS,STRUCTURAL METAL-PRECISION	190	4.11	19
WELDERS AND CUTTERS	10	0.22	14
GRINDING & POLISHING WORKERS, HAND	80	1.73	15
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	150	3.25	16
ALL OTHER HAND WORKERS	40	0.87	20
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.22	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.22	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	60	1.30	16
MECHANIC AND REPAIRER HELPERS	50	1.08	20
MACHINE FEEDERS AND OFFBEARERS	40	0.87	21
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	120	2.60	13
HAND PACKERS AND PACKAGERS	10	0.22	41
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	80	1.73	N/A

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SIC 35

This major group includes establishments engaged in manufacturing machinery and equipment, other than electrical equipment and transportation equipment. Machines powered by built-in or detachable motors ordinarily are included in this major group, with the exception of electrical household appliances.

This industry has the second highest employment level (16.1 percent of total) in the manufacturing sector. Only electrical machinery, with 18.1 percent of the total employment in manufacturing, is higher.

PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	35	351	354	355	356	357	359
TOTAL	100%	100%	100%	100%	100%	100%	100%
Managerial & Admin. Occs.	10.55	11.48	7.52	8.30	8.94	12.47	8.34
Prof., & Tech. Occ.	23.94	15.00	10.76	16.37	15.50	34.78	5.61
Sales Occs.	5.62	1.48	3.32	7.46	5.59	6.63	3.15
Clerical Occs.	17.88	12.04	13.56	17.22	16.90	21.01	11.22
Service Occ.	1.80	2.04	1.62	1.08	1.54	2.20	1.37
Prod., & Maint., Occs.	40.06	57.96	63.23	49.58	51.54	22.90	70.45

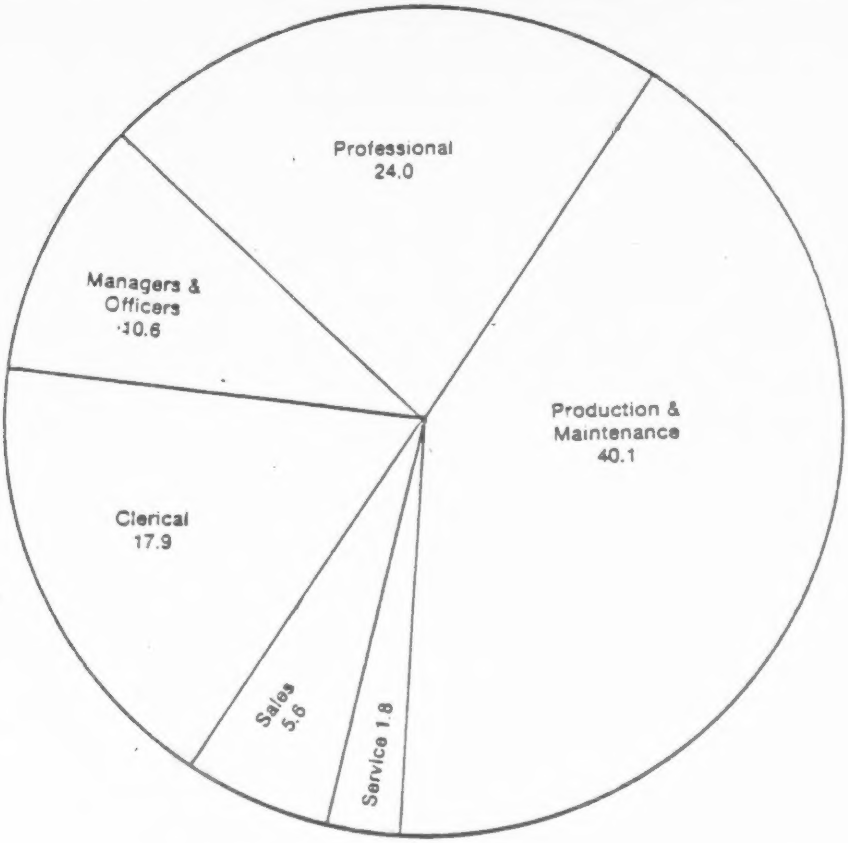
The high proportion of production and maintenance workers in SIC 354 (metal working machinery and equipment) is mostly due to tool and die makers and machinists in this category, who comprise 68 percent and 31 percent respectively of the total industry employment in those occupations.

Office computing and accounting machines (SIC 357) once again has the highest percentage of professional and technical occupations in the occupational distribution (34.78 percent). The various engineers and engineering technicians needed in the computer industries account for this high percentage. The professional, paraprofessional and technical category in this industry is also the only major category in a three digit SIC that is larger than the production and maintenance occupations.

This industry,which manufactures electronic computing equipment, typewriters, calculating and accounting machines, scales and balances (except laboratory) and miscellandous office machinery, grew 12 percent since the last survey (1980) and contains 51 percent of the two digit industry employment.

MACHINERY, EXCEPT ELECTRICAL (SIC 35)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Electrical and Electronic Engineers	4,340
2.	Machinists	4,100
3.	Secretaries	3,810
4.	All Other Managers and Administrators	3,800
5.	Sales Representatives, Scientific Products except Retail	3,290
6.	General Managers and Top Executives	3,020
7.	Electrical and Electronic Engineering Technicians and Technologists	2, 970
8.	Supervisors-Production and Operating Workers	2,610
9.	Precision Inspectors, Testers and Graders	2,430
10.	Assemblers and Fabricators except Machine, Electrical, Electronic, and Precision Workers	2,430

These 10 occupational categories make up 32.4% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
MACHINERY EXCEPT ELECTRICAL
SIC = 35
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	101,200	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	10,680	10.55	N/A
FINANCIAL MANAGERS	670	0.66	14
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	430	0.42	12
PURCHASING MANAGERS	180	0.18	15
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	1,010	1.00	23
ADMINISTRATIVE SERVICES MANAGERS	360	0.36	23
INDUSTRIAL PRODUCTION MANAGERS	1,210	1.20	18
GENERAL MANAGERS AND TOP EXECUTIVES	3,020	2.98	10
ALL OTHER MANAGERS AND ADMINISTRATORS	3,800	3.75	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	24,230	23.94	N/A
ACCOUNTANTS AND AUDITORS	920	0.91	13
BUDGET ANALYSTS	180	0.18	25
ALL OTHER FINANCIAL SPECIALISTS	880	0.87	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	490	0.48	11
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	580	0.57	20
COST ESTIMATORS	160	0.16	20
ALL OTHER MANAGEMENT SUPPORT WORKERS	1,500	1.48	N/A
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	50	0.05	31
CIVIL ENGINEERS, INCLUDING TRAFFIC	20	0.02	13
ELECTRICAL AND ELECTRONIC ENGINEERS	4,340	4.29	17
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	1,390	1.37	18
SAFETY ENGINEERS, EXCEPT MINING	40	0.04	31
MECHANICAL ENGINEERS	1,480	1.46	11
ALL OTHER ENGINEERS	1,110	1.10	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	2,970	2.93	14
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	340	0.34	34
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	310	0.31	29
DRAFTERS	1,430	1.41	14
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	1,440	1.42	22
ALL OTHER PHYSICAL SCIENTISTS	80	0.08	N/A
LIFE SCIENTISTS	50	0.05	21
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	1,090	1.08	17
COMPUTER PROGRAMMERS	1,390	1.37	40
COMPUTER PROGRAMMER AIDES	160	0.16	30
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	140	0.14	22
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	110	0.11	29
ALL OTHER MATHEMATICAL SCIENTISTS	80	0.08	N/A
LAWYERS	80	0.08	31

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TABLE
OCCUPATIONS OF EMPLOYEES
MACHINERY EXCEPT ELECTRICAL
SIC = 35
- REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	120	0.12	20
WRITERS AND EDITORS	70	0.07	27
TECHNICAL WRITERS	400	0.40	24
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	50	0.05	26
DESIGNERS, EXCEPT INTERIOR DESIGNERS	330	0.33	21
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	450	0.44	37
SALES AND RELATED OCCUPATIONS	5,690	5.62	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	400	0.40	23
SALES ENGINEERS	530	0.52	37
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	3,290	3.25	22
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	930	0.92	37
ALL OTHER SALES AND RELATED WORKERS	540	0.53	32
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	18,090	17.88	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	1,070	1.06	38
SECRETARIES	3,810	3.76	6
STENOGRAPHERS	80	0.08	28
RECEPTIONIST AND INFORMATION CLERKS	190	0.19	21
TYPISTS	320	0.32	22
TYPISTS, WORD PROCESSING EQUIPMENT	120	0.12	34
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	290	0.29	15
FILE CLERKS	120	0.12	25
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	410	0.41	23
PROCUREMENT CLERKS	180	0.18	22
STATISTICAL CLERKS	150	0.15	38
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,620	1.60	10
PAYROLL AND TIMEKEEPING CLERKS	220	0.22	18
BILLING, COST AND RATE CLERKS	360	0.36	21
GENERAL OFFICE CLERKS	1,380	1.36	12
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	720	0.71	15
PERIPHERAL EDP EQUIPMENT OPERATORS	50	0.05	44
DATA ENTRY KEYERS, EXCEPT COMPOSING	550	0.54	16
ALL OTHER OFFICE MACHINE OPERATORS	140	0.14	N/A
SWITCHBOARD OPERATORS	230	0.23	15
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	1,690	1.67	23
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	30	0.03	41
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	1,720	1.70	13
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	1,630	1.61	18
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	190	0.19	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	820	0.81	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
MACHINERY EXCEPT ELECTRICAL
SIC = 35
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	1,820	1.80	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	180	0.18	27
GUARDS AND WATCH GUARDS	360	0.36	17
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	40	0.04	49
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	1,180	1.17	15
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.02	N/A
ALL OTHER SERVICE WORKERS	40	0.04	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	30	0.03	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	30	0.03	38
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	40,540	40.06	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	170	0.17	36
SUPERVISORS-CCNSTRUCTION & EXTRACTIVE WORKERS	10	0.01	27
SUPERVISORS-PRODUCTION & OPERATING WORKERS	2,610	2.58	10
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	70	0.07	28
PRECISION INSPECTORS, TESTERS, AND GRADERS	2,430	2.40	18
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	1,620	1.60	29
MACHINERY MAINTENANCE MECHANICS	550	0.54	23
MILLWRIGHTS	70	0.07	45
MACHINERY MAINTENANCE WORKERS	100	0.10	32
MAINTENANCE REPAIRERS, GENERAL UTILITY	610	0.60	15
AUTOMOTIVE MECHANICS	30	0.03	24
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	70	0.07	22
RIGGERS	50	0.05	7
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	1,470	1.45	N/A
CARPENTERS	170	0.17	20
ELECTRICIANS	390	0.39	12
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	110	0.11	22
ALL OTHER CONSTRUCTION TRADES WORKERS	220	0.22	N/A
TOOL AND DIE MAKERS	1,350	1.33	22
MACHINISTS	4,100	4.05	11
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	180	0.18	27
SHEET METAL WORKERS	790	0.78	22
ALL OTHER PRECISION METAL WORKERS	610	0.60	N/A
ALL OTHER PRECISION WOODWORKERS	40	0.04	N/A
ALL OTHER PRECISION WORKERS	120	0.12	N/A
SAW MACH TOOL SETTERS,SET-UP OPER,METAL&PLAST	110	0.11	33
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	1,610	1.59	14
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	880	0.87	21
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	930	0.92	17
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	1,170	1.16	19

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1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MACHINERY EXCEPT ELECTRICAL
SIC = 35
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MACHINE TOOL CUTTING OPERATORS & TENDERS	1,020	1.01	31
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	400	0.40	36
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	80	0.08	32
FORG MACH SETTER & SET-UP OPER, METAL PLASTIC	10	0.01	14
MACH FORMING OPER & TENDERS, METAL & PLASTIC	660	0.65	25
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	1,310	1.29	15
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	220	0.22	36
COMB MACH TOOL OPER, TENDERS, METAL & PLASTIC	470	0.46	36
WELDING MACHINE SETTERS AND SET-UP OPERATORS	540	0.53	19
WELDING MACHINE OPERATORS AND TENDERS	100	0.10	32
SOLDERING,BRAZING MACH OPERATORS AND TENDERS	150	0.15	47
METAL MOLDING & CASTING MACH SETTER,SET-UP OP	30	0.03	15
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	70	0.07	45
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	80	0.08	48
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	290	0.29	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	330	0.33	N/A
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	10	0.01	N/A
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.01	11
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	140	0.14	31
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	270	0.27	41
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	40	0.04	34
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	150	0.15	11
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	360	0.36	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	510	0.50	N/A
MACH BUILDERS & OTHER PRECISION MACH ASSEMBL.	1,020	1.01	26
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	1,420	1.40	51
ALL OTHER PRECISION ASSEMBLERS, METAL	820	0.81	N/A
MACHINE ASSEMBLERS	520	0.51	35
ELECTRICAL & ELECTRONIC ASSEMBLERS	1,810	1.79	32
COIL WINDERS, TAPERS AND FINISHERS	110	0.11	47
SOLDERERS AND BRAZERS	190	0.19	49
GRINDING & POLISHING WORKERS, HAND	110	0.11	42
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	2,430	2.40	18
ALL OTHER HAND WORKERS	310	0.31	N/A
STATIONARY ENGINEERS	50	0.05	13
ALL OTHER PLANT AND SYSTEM OPERATORS	50	0.05	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	60	0.06	20
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	120	0.12	23
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.01	N/A
HOIST AND WINCH OPERATORS	40	0.04	15

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TABLE
OCCUPATIONS OF EMPLOYEES
MACHINERY EXCEPT ELECTRICAL
SIC = 35
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	240	0.24	24
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	30	0.03	N/A
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	50	0.05	50
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	780	0.77	27
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	560	0.55	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ENGINES AND TURBINES
SIC = 351
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	5,400	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	620	11.48	N/A
FINANCIAL MANAGERS	50	0.93	3
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	40	0.74	8
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	60	1.11	7
INDUSTRIAL PRODUCTION MANAGERS	270	5.00	7
ALL OTHER MANAGERS AND ADMINISTRATORS	210	3.89	7
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	810	15.00	N/A
ACCOUNTANTS AND AUDITORS	70	1.30	3
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.19	24
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	40	0.74	6
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	10	0.19	8
CIVIL ENGINEERS, INCLUDING TRAFFIC	10	0.19	7
ELECTRICAL AND ELECTRONIC ENGINEERS	90	1.67	8
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	40	0.74	5
MECHANICAL ENGINEERS	200	3.70	3
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.19	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.37	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.37	25
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	20	0.37	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.19	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.19	8
DESIGNERS, EXCEPT INTERIOR DESIGNERS	190	3.52	8
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	70	1.30	N/A
SALES AND RELATED OCCUPATIONS	80	1.48	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	0.93	4
SALES ENGINEERS	20	0.37	12
ALL OTHER SALES AND RELATED WORKERS	20	0.37	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	650	12.04	N/A
SECRETARIES	90	1.67	15
STENOGRAPHERS	40	0.74	8
TYPISTS	20	0.37	8
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.19	9
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	0.74	19
PAYROLL AND TIMEKEEPING CLERKS	10	0.19	N/A
GENERAL OFFICE CLERKS	40	0.74	34
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.37	12
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.19	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.56	4
ALL OTHER OFFICE MACHINE OPERATORS	30	0.56	3

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TABLE
OCCUPATIONS OF EMPLOYEES
ENGINES AND TURBINES
SIC = 351
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SWITCHBOARD OPERATORS	10	0.19	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	90	1.67	10
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	100	1.85	10
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	50	0.93	21
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	80	1.48	N/A
SERVICE OCCUPATIONS	110	2.04	N/A
GUARDS AND WATCH GUARDS	40	0.74	8
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	0.93	4
ALL OTHER SERVICE WORKERS	10	0.19	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,130	57.96	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	120	2.22	15
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	180	3.33	4
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	20	0.37	N/A
MACHINERY MAINTENANCE MECHANICS	100	1.85	8
MACHINERY MAINTENANCE WORKERS	10	0.19	8
AUTOMOTIVE MECHANICS	10	0.19	N/A
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.19	N/A
RIGGERS	40	0.74	8
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	130	2.41	8
CARPENTERS	50	0.93	8
ELECTRICIANS	110	2.04	8
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	30	0.56	N/A
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	70	1.30	8
TOOL AND DIE MAKERS	20	0.37	N/A
SHEET METAL WORKERS	10	0.19	N/A
ALL OTHER PRECISION WORKERS	130	2.41	N/A
SAW MACH TOOL SETTERS,SET-UP OPER,METAL&PLAST	10	0.19	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	250	4.63	7
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	70	1.30	3
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	180	3.33	4
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	130	2.41	8
MACHINE TOOL CUTTING OPERATORS & TENDERS	70	1.30	5
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	20	0.37	23
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	200	3.70	4
WELDING MACHINE SETTERS AND SET-UP OPERATORS	10	0.19	19
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	80	1.48	8
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.19	N/A
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	10	0.19	N/A
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	10	0.19	8
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	20	0.37	20

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ENGINES AND TURBINES

SIC = 351

REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	110	2.04	8
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	220	4.07	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	100	1.85	6
MACH BUILDERS & OTHER PRECISION MACH ASSEMBL.	180	3.33	2
ELECTROMECHANICAL EQUIP ASSEMB.-PRECISION	30	0.56	9
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	40	0.74	8
ALL OTHER PRECISION ASSEMBLERS, METAL	30	0.56	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	10	0.19	N/A
COIL WINDERS, TAPERS AND FINISHERS	20	0.37	8
WELDERS AND CUTTERS	70	1.30	6
ALL OTHER HAND WORKERS	10	0.19	N/A
STATIONARY ENGINEERS	30	0.56	5
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.37	8
HOIST AND WINCH OPERATORS	40	0.74	8
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	0.56	3
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	10	0.19	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	90	1.67	8

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
METAL WORKING MACHINERY & EQUIPMENT
SIC = 354
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	13,570	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,020	7.52	N/A
FINANCIAL MANAGERS	30	0.22	25
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.22	18
PURCHASING MANAGERS	20	0.15	34
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	0.22	35
INDUSTRIAL PRODUCTION MANAGERS	60	0.44	15
GENERAL MANAGERS AND TOP EXECUTIVES	760	5.60	22
ALL OTHER MANAGERS AND ADMINISTRATORS	100	0.74	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,460	10.76	N/A
ACCOUNTANTS AND AUDITORS	80	0.59	22
ALL OTHER FINANCIAL SPECIALISTS	10	0.07	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	50	0.37	25
COST ESTIMATORS	20	0.15	30
ALL OTHER MANAGEMENT SUPPORT WORKERS	40	0.29	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	70	0.52	24
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	140	1.03	23
SAFETY ENGINEERS, EXCEPT MINING	10	0.07	35
MECHANICAL ENGINEERS	320	2.36	24
ALL OTHER ENGINEERS	70	0.52	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	40	0.29	33
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	40	0.29	15
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	40	0.29	29
DRAFTERS	390	2.87	30
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.15	N/A
COMPUTER PROGRAMMERS	50	0.37	33
ALL OTHER MATHEMATICAL SCIENTISTS	60	0.44	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.07	28
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.07	20
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.07	N/A
SALES AND RELATED OCCUPATIONS	450	3.32	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.15	19
SALES ENGINEERS	60	0.44	30
ALL OTHER SALES AND RELATED WORKERS	370	2.73	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,840	13.56	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	40	0.29	29
SECRETARIES	350	2.58	19
STENOGRAPHERS	10	0.07	29
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	40	0.29	32
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	370	2.73	24

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
METAL WORKING MACHINERY & EQUIPMENT
SIC = 354
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PAYROLL AND TIMEKEEPING CLERKS	40	0.29	35
BILLING, COST AND RATE CLERKS	20	0.15	35
GENERAL OFFICE CLERKS	230	1.69	25
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.15	31
DATA ENTRY KEYERS, EXCEPT COMPOSING	50	0.37	18
ALL OTHER OFFICE MACHINE OPERATORS	30	0.22	N/A
SWITCHBOARD OPERATORS	10	0.07	35
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	80	0.59	14
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	180	1.33	26
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	290	2.14	32
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	30	0.22	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	60	0.44	N/A
SERVICE OCCUPATIONS	220	1.62	N/A
GUARDS AND WATCH GUARDS	30	0.22	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	170	1.25	25
ALL OTHER SERVICE WORKERS	20	0.15	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	8,580	63.23	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	580	4.27	19
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.07	31
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.07	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	300	2.21	23
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	80	0.59	N/A
MACHINERY MAINTENANCE MECHANICS	70	0.52	28
MAINTENANCE REPAIRERS, GENERAL UTILITY	170	1.25	25
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	20	0.15	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.07	N/A
ELECTRICIANS	70	0.52	13
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.07	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	30	0.22	N/A
TOOL AND DIE MAKERS	920	6.78	32
MACHINISTS	1,260	9.29	23
ALL OTHER PRECISION METAL WORKERS	310	2.28	N/A
PATTERN AND MODEL MAKERS, WOOD	10	0.07	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	340	2.51	19
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	340	2.51	31
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	280	2.06	29
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	610	4.50	30
MACH FORMING OPER & TENDERS, METAL & PLASTIC	360	2.65	N/A
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	370	2.73	N/A
WELDING MACHINE SETTERS AND SET-UP OPERATORS	100	0.74	34

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TABLE
OCCUPATIONS OF EMPLOYEES
METAL WORKING MACHINERY & EQUIPMENT
SIC = 354
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
METAL MOLDING & CASTING MACH SETTER,SET-UP OP	20	0.15	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	310	2.28	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	580	4.27	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.15	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	70	0.52	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	360	2.65	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	150	1.11	N/A
ALL OTHER HAND WORKERS	470	3.46	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.07	34
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.07	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	50	0.37	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	270	1.99	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.15	N/A

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** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SPECIAL INDUSTRY MACHINERY
SIC = 355
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	13,010	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,080	8.30	N/A
FINANCIAL MANAGERS	60	0.46	19
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	40	0.31	45
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	180	1.38	42
GENERAL MANAGERS AND TOP EXECUTIVES	390	3.00	42
ALL OTHER MANAGERS AND ADMINISTRATORS	410	3.15	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	2,130	16.37	N/A
ACCOUNTANTS AND AUDITORS	100	0.77	35
BUDGET ANALYSTS	40	0.31	26
ALL OTHER FINANCIAL SPECIALISTS	40	0.31	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	160	1.23	42
ELECTRICAL AND ELECTRONIC ENGINEERS	180	1.38	15
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	110	0.85	37
MECHANICAL ENGINEERS	260	2.00	43
ALL OTHER ENGINEERS	120	0.92	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	330	2.54	23
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	390	3.00	N/A
ALL OTHER PHYSICAL SCIENTISTS	20	0.15	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	70	0.54	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	80	0.61	15
COMPUTER PROGRAMMERS	70	0.54	33
ALL OTHER MATHEMATICAL SCIENTISTS	60	0.46	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	10	0.08	N/A
ALL OTHER HEALTH DIAGNOSING & TREATING PRACT.	10	0.08	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	110	0.85	N/A
SALES AND RELATED OCCUPATIONS	970	7.46	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	40	0.31	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	290	2.23	40
ALL OTHER SALES AND RELATED WORKERS	640	4.92	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,240	17.22	N/A
SECRETARIES	310	2.38	22
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	160	1.23	46
GENERAL OFFICE CLERKS	230	1.77	28
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.31	43
ALL OTHER OFFICE MACHINE OPERATORS	80	0.61	N/A
SWITCHBOARD OPERATORS	30	0.23	45
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	310	2.38	33
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	250	1.92	24
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	210	1.61	36

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SPECIAL INDUSTRY MACHINERY
SIC = 355
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	40	0.31	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	580	4.46	N/A
SERVICE OCCUPATIONS	140	1.08	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	10	0.08	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	30	0.23	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	100	0.77	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	6,450	49.58	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	360	2.77	36
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	130	1.00	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	220	1.69	32
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	250	1.92	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	90	0.69	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	150	1.15	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	540	4.15	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	100	0.77	N/A
ALL OTHER PRECISION METAL WORKERS	1,140	8.76	N/A
ALL OTHER PRECISION WOODWORKERS	10	0.08	N/A
ALL OTHER PRECISION WORKERS	20	0.15	N/A
METAL MOLDING & CASTING MACH SETTER,SET-UP OP	10	0.08	N/A
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	10	0.08	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	1,060	8.15	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	640	4.92	N/A
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.08	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	80	0.61	48
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	30	0.23	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	300	2.31	N/A
ELECTROMECHANICAL EQUIP ASSEMB.-PRECISION	60	0.46	N/A
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	160	1.23	22
ALL OTHER PRECISION ASSEMBLERS, METAL	400	3.07	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	50	0.38	N/A
ALL OTHER HAND WORKERS	170	1.31	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.08	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	40	0.31	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	80	0.61	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	280	2.15	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	0.38	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GENERAL INDUSTRY MACHINERY
SIC = 356
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,160	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	640	8.94	N/A
FINANCIAL MANAGERS	50	0.70	8
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.42	15
PURCHASING MANAGERS	20	0.28	23
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	90	1.26	10
ADMINISTRATIVE SERVICES MANAGERS	20	0.28	10
INDUSTRIAL PRODUCTION MANAGERS	60	0.84	11
GENERAL MANAGERS AND TOP EXECUTIVES	260	3.63	17
ALL OTHER MANAGERS AND ADMINISTRATORS	110	1.54	8
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,110	15.50	N/A
ACCOUNTANTS AND AUDITORS	70	0.98	15
BUDGET ANALYSTS	10	0.14	9
ALL OTHER FINANCIAL SPECIALISTS	10	0.14	12
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	50	0.70	15
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.28	8
COST ESTIMATORS	20	0.28	36
ALL OTHER MANAGEMENT SUPPORT WORKERS	50	0.70	19
CHEMICAL ENGINEERS	20	0.28	19
ELECTRICAL AND ELECTRONIC ENGINEERS	70	0.98	19
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	110	1.54	11
MECHANICAL ENGINEERS	180	2.51	18
ALL OTHER ENGINEERS	30	0.42	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	60	0.84	23
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	20	0.28	36
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	50	0.70	10
DRAFTERS	140	1.96	17
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.28	22
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.14	18
LIFE SCIENTISTS	50	0.70	19
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.28	6
COMPUTER PROGRAMMERS	40	0.56	20
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	10	0.14	24
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	10	0.14	11
TECHNICAL WRITERS	10	0.14	17
DESIGNERS, EXCEPT INTERIOR DESIGNERS	20	0.28	16
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	0.28	N/A
SALES AND RELATED OCCUPATIONS	400	5.59	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	60	0.84	15
SALES ENGINEERS	100	1.40	24

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GENERAL INDUSTRY MACHINERY
SIC = 356
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	160	2.23	23
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	80	1.12	27
ALL OTHER SALES AND RELATED WORKERS	10	0.14	24
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,210	16.90	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	60	0.84	14
SECRETARIES	220	3.07	14
RECEPTIONIST AND INFORMATION CLERKS	10	0.14	35
TYPISTS	10	0.14	42
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.14	26
FILE CLERKS	20	0.28	16
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	70	0.98	20
PROCUREMENT CLERKS	20	0.28	33
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	140	1.96	15
PAYROLL AND TIMEKEEPING CLERKS	10	0.14	26
BILLING, COST AND RATE CLERKS	20	0.28	32
GENERAL OFFICE CLERKS	120	1.68	22
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	30	0.42	12
DATA ENTRY KEYERS, EXCEPT COMPOSING	40	0.56	8
ALL OTHER OFFICE MACHINE OPERATORS	10	0.14	N/A
SWITCHBOARD OPERATORS	20	0.28	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	130	1.82	11
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	140	1.96	15
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	120	1.68	13
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.14	32
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.28	N/A
SERVICE OCCUPATIONS	110	1.54	N/A
GUARDS AND WATCH GUARDS	20	0.28	9
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	80	1.12	15
ALL OTHER SERVICE WORKERS	10	0.14	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,690	51.54	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.28	16
SUPERVISORS-PRODUCTION & OPERATING WORKERS	270	3.77	10
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.14	35
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.14	20
PRECISION INSPECTORS, TESTERS, AND GRADERS	120	1.68	14
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	60	0.84	18
MACHINERY MAINTENANCE MECHANICS	40	0.56	6
MILLWRIGHTS	10	0.14	22
MACHINERY MAINTENANCE WORKERS	10	0.14	16
MAINTENANCE REPAIRERS, GENERAL UTILITY	50	0.70	38

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TABLE
OCCUPATIONS OF EMPLOYEES
GENERAL INDUSTRY MACHINERY
SIC = 356
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
RIGGERS	10	0.14	20
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	20	0.28	25
CARPENTERS	10	0.14	12
ELECTRICIANS	30	0.42	12
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	20	0.28	24
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	30	0.42	18
TOOL AND DIE MAKERS	60	0.84	22
MACHINISTS	350	4.89	27
PRECISION LAYOUT WORKERS, METAL	10	0.14	22
SHEET METAL WORKERS	110	1.54	47
PATTERN AND MODEL MAKERS, WOOD	10	0.14	29
ALL OTHER PRECISION WORKERS	10	0.14	N/A
SAW MACH TOOL SETTERS,SET-UP OPER,METAL&PLAST	10	0.14	34
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	230	3.21	20
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	80	1.12	24
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	50	0.70	37
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	110	1.54	33
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	40	0.56	37
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	10	0.14	27
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	10	0.14	32
MACH FORMING OPER & TENDERS, METAL & PLASTIC	30	0.42	18
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	100	1.40	25
WELDING MACHINE SETTERS AND SET-UP OPERATORS	90	1.26	24
METAL MOLDING & CASTING MACH SETTER,SET-UP OP	10	0.14	25
METAL MOLDING & CASTING MACH OPERATOR,TENDER	20	0.28	19
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	10	0.14	14
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	80	1.12	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	190	2.65	N/A
SAWING MACHINE OPERATORS AND TENDERS	10	0.14	35
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.14	50
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	10	0.14	40
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.14	13
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	10	0.14	24
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	80	1.12	47
ALL OTHER MACHINE OPERATORS AND TENDERS	20	0.28	N/A
MACH BUILDERS & OTHER PRECISION MACH ASSEMBL.	90	1.26	27
ALL OTHER PRECISION ASSEMBLERS, METAL	20	0.28	25
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	60	0.84	N/A
MACHINE ASSEMBLERS	140	1.96	26
ELECTRICAL & ELECTRONIC ASSEMBLERS	130	1.82	39

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TABLE
OCCUPATIONS OF EMPLOYEES
GENERAL INDUSTRY MACHINERY
SIC = 356
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
WELDERS AND CUTTERS	50	0.70	13
SOLDERERS AND BRAZERS	10	0.14	38
GRINDING & POLISHING WORKERS, HAND	30	0.42	18
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	540	7.54	18
STATIONARY ENGINEERS	10	0.14	20
CRANE AND TOWER OPERATORS	10	0.14	18
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	0.42	49
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.14	N/A
MECHANIC AND REPAIRER HELPERS	10	0.14	26
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	10	0.14	25
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	40	0.56	27
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	0.56	32

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TABLE
OCCUPATIONS OF EMPLOYEES
OFFICE AND COMPUTING MACHINES
SIC = 357
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	51,870	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	6,470	12.47	N/A
FINANCIAL MANAGERS	450	0.87	21
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	300	0.58	16
PURCHASING MANAGERS	110	0.21	21
ADMINISTRATIVE SERVICES MANAGERS	290	0.56	27
INDUSTRIAL PRODUCTION MANAGERS	670	1.29	29
GENERAL MANAGERS AND TOP EXECUTIVES	840	1.62	22
ALL OTHER MANAGERS AND ADMINISTRATORS	3,820	7.36	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	18,040	34.78	N/A
ACCOUNTANTS AND AUDITORS	530	1.02	21
BUDGET ANALYSTS	130	0.25	35
ALL OTHER FINANCIAL SPECIALISTS	820	1.58	33
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	300	0.58	15
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	490	0.94	24
COST ESTIMATORS	70	0.13	24
ALL OTHER MANAGEMENT SUPPORT WORKERS	1,370	2.64	26
ELECTRICAL AND ELECTRONIC ENGINEERS	3,900	7.52	19
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	980	1.89	25
SAFETY ENGINEERS, EXCEPT MINING	30	0.06	33
MECHANICAL ENGINEERS	340	0.66	24
ALL OTHER ENGINEERS	920	1.77	32
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	2,520	4.86	17
DRAFTERS	530	1.02	17
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	1,680	3.24	22
ALL OTHER PHYSICAL SCIENTISTS	20	0.04	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.02	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	930	1.79	20
COMPUTER PROGRAMMER AIDES	130	0.25	34
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	90	0.17	29
ALL OTHER MATHEMATICAL SCIENTISTS	1,250	2.41	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	60	0.12	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	90	0.17	25
WRITERS AND EDITORS	60	0.12	31
TECHNICAL WRITERS	370	0.71	25
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	50	0.10	20
DESIGNERS, EXCEPT INTERIOR DESIGNERS	40	0.08	35
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	340	0.66	N/A

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TABLE -
OCCUPATIONS OF EMPLOYEES
OFFICE AND COMPUTING MACHINES
SIC = 357
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SALES AND RELATED OCCUPATIONS	3,440	6.63	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	240	0.46	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	2,610	5.03	27
ALL OTHER SALES AND RELATED WORKERS	580	1.12	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	10,900	21.01	N/A
SECRETARIES	2,420	4.67	8
RECEPTIONIST AND INFORMATION CLERKS	160	0.31	25
TYPISTS	210	0.40	25
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	230	0.44	17
PROCUREMENT CLERKS	100	0.19	26
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	670	1.29	18
PAYROLL AND TIMEKEEPING CLERKS	130	0.25	24
BILLING, COST AND RATE CLERKS	250	0.48	28
GENERAL OFFICE CLERKS	590	1.14	22
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	610	1.18	18
DATA ENTRY KEYERS, EXCEPT COMPOSING	370	0.71	22
ALL OTHER OFFICE MACHINE OPERATORS	90	0.17	N/A
SWITCHBOARD OPERATORS	160	0.31	20
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	970	1.87	21
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	840	1.62	31
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	1,160	2.24	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	1,950	3.76	N/A
SERVICE OCCUPATIONS	1,140	2.20	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	150	0.29	31
GUARDS AND WATCH GUARDS	240	0.46	22
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	670	1.29	23
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.02	N/A
ALL OTHER SERVICE WORKERS	70	0.13	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	11,880	22.90	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	900	1.74	22
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	200	0.39	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	1,540	2.97	27
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	940	1.81	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	240	0.46	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	140	0.27	27
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	70	0.13	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	330	0.64	N/A
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	50	0.10	28
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	320	0.62	N/A
CARPENTERS	70	0.13	24

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TABLE
OCCUPATIONS OF EMPLOYEES
OFFICE AND COMPUTING MACHINES
SIC = 357
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ELECTRICIANS	150	0.29	20
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	50	0.10	25
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.04	26
ALL OTHER CONSTRUCTION TRADES WORKERS	40	0.08	N/A
MACHINISTS	270	0.52	31
ALL OTHER PRECISION METAL WORKERS	340	0.66	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	200	0.39	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	480	0.93	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.04	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	140	0.27	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	200	0.39	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	3,230	6.23	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	1,040	2.01	31
ALL OTHER HAND WORKERS	290	0.56	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	50	0.10	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	60	0.12	30
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.04	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	40	0.08	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	290	0.56	35
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	150	0.29	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.02	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
MISC. MACHINERY, EXCEPT ELECTRICAL
SIC = 359
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,310	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	610	8.34	N/A
FINANCIAL MANAGERS	20	0.27	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.14	N/A
PURCHASING MANAGERS	10	0.14	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.14	N/A
ADMINISTRATIVE SERVICES MANAGERS	10	0.14	29
INDUSTRIAL PRODUCTION MANAGERS	20	0.27	13
GENERAL MANAGERS AND TOP EXECUTIVES	530	7.25	7
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.14	18
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	410	5.61	N/A
ACCOUNTANTS AND AUDITORS	70	0.96	17
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.14	11
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.14	35
COST ESTIMATORS	10	0.14	14
ELECTRICAL AND ELECTRONIC ENGINEERS	20	0.27	39
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	20	0.27	39
MECHANICAL ENGINEERS	110	1.50	23
ALL OTHER ENGINEERS	10	0.14	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	10	0.14	22
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	40	0.55	39
DRAFTERS	60	0.82	14
COMPUTER PROGRAMMERS	20	0.27	18
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	20	0.27	27
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	0.27	N/A
SALES AND RELATED OCCUPATIONS	230	3.15	N/A
SALES ENGINEERS	40	0.55	15
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	90	1.23	22
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	100	1.37	20
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	820	11.22	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.14	N/A
SECRETARIES	270	3.69	9
TYPISTS	10	0.14	22
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.14	20
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	160	2.19	14
PAYROLL AND TIMEKEEPING CLERKS	10	0.14	N/A
BILLING, COST AND RATE CLERKS	20	0.27	27
GENERAL OFFICE CLERKS	130	1.78	17
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.14	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.14	25

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1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. MACHINERY, EXCEPT ELECTRICAL
SIC = 359
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SWITCHBOARD OPERATORS	10	0.14	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	30	0.41	9
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	0.68	9
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	90	1.23	12
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.27	N/A
SERVICE OCCUPATIONS	100	1.37	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	90	1.23	14
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.14	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,150	70.45	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	260	3.56	9
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.14	29
PRECISION INSPECTORS, TESTERS, AND GRADERS	180	2.46	10
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	70	0.96	17
MACHINERY MAINTENANCE MECHANICS	10	0.14	13
MILLWRIGHTS	10	0.14	30
MAINTENANCE REPAIRERS, GENERAL UTILITY	70	0.96	23
ELECTRICIANS	10	0.14	11
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.14	N/A
TOOL AND DIE MAKERS	200	2.74	33
MACHINISTS	1,740	23.80	8
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	10	0.14	29
SHEET METAL WORKERS	80	1.09	41
ALL OTHER PRECISION WOODWORKERS	10	0.14	N/A
SAW MACH TOOL SETTERS,SET-UP OPER,METAL&PLAST	30	0.41	34
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	410	5.61	14
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	150	2.05	20
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	200	2.74	18
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	80	1.09	24
MACHINE TOOL CUTTING OPERATORS & TENDERS	280	3.83	25
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	20	0.27	26
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	20	0.27	43
MACH FORMING OPER & TENDERS, METAL & PLASTIC	60	0.82	22
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	390	5.34	14
WELDING MACHINE SETTERS AND SET-UP OPERATORS	100	1.37	20
WELDING MACHINE OPERATORS AND TENDERS	30	0.41	39
SOLDER,BRAZING MACH SETTER, SET-UP OPERATORS	40	0.55	36
SOLDERING,BRAZING MACH OPERATORS AND TENDERS	20	0.27	46
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	90	1.23	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	120	1.64	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	20	0.27	30

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. MACHINERY, EXCEPT ELECTRICAL
SIC = 359
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.14	42
ALL OTHER MACHINE OPERATORS AND TENDERS	80	1.09	N/A
MACH BUILDERS & OTHER PRECISION MACH ASSEMBL.	70	0.96	40
ELECTROMECHANICAL EQUIP ASSEMB.-PRECISION	40	0.55	44
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	30	0.41	N/A
WELDERS AND CUTTERS	20	0.27	25
GRINDING & POLISHING WORKERS, HAND	30	0.41	18
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	60	0.82	33
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.14	9
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.27	16
MACHINE FEEDERS AND OFFBEARERS	50	0.68	43
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.14	25
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	10	0.14	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

SIC 36

This major group includes establishments engaged in manufacturing machinery, apparatus and supplies for the generation, storage, transmission, transformation and utilization of electrical energy.

The electrical equipment and supplies industry is the largest in the state's manufacturing sector with 114,800 annual average employment in 1983. The primary contributor to the major industry results was the "high technology" oriented electronic components and accessories (SIC 367) industry.

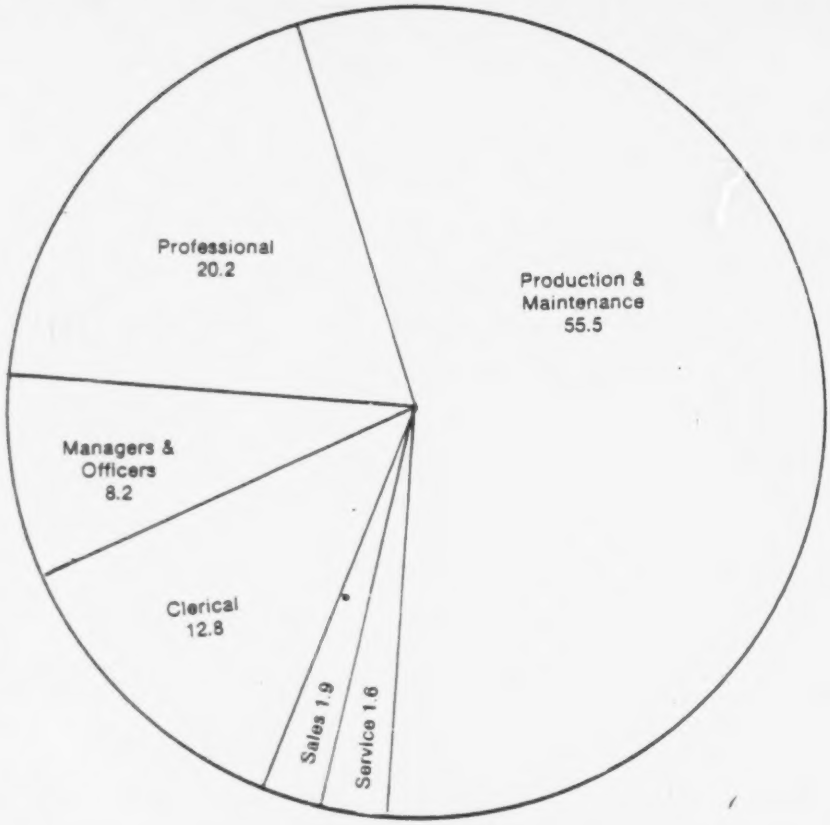
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	36	362	364	366	367
TOTAL	100%	100%	100%	100%	100%
Managerial & Administrative Occs.	8.16	3.89	7.29	6.56	10.08
Profess., Paraprofess., Tech. Occs.	20.16	9.12	6.40	28.69	20.36
Sales and Related Occs.	1.94	2.01	3.27	0.63	2.07
Clerical and Admin Support Occs.	12.75	8.04	11.16	15.71	11.67
Service Occs.	1.56	1.34	1.19	2.52	1.20
Prod., Constr., & Maint, Occs.	55.45	75.60	70.68	45.92	54.61

A feature of the occupational profile of the electrical equipment and supplies industry is its comparatively low level of production and maintenance workers (55.5 percent) compared to other manufacturing industries. This lower production and maintenance share is offset by a higher share (20.4 percent) of workers in the professional, paraprofessional, and technical occupations. Engineers (8,700) and engineering technicians and technologists (4,820) are the predominant occupations that make up 58.3 percent of the employment in the professional and technical group. Three occupations account for 60.6 percent of production employment: all other mechanics, installers, and repairers (15,230), all other hand workers (14,140) and assemblers and fabricators (9,270).

ELECTRICAL EQUIPMENT AND SUPPLIES (SIC 36)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	All Other Mechanics, Installers and Repairers	15,230
2.	All Other Hand Workers	14,140
3.	All Other Managers and Administrators	9,390
4.	Assemblers and Fabricators except Machine, Electrical, Electronic, and Precision Workers	9,270
5.	All Other Engineers	8,700
6.	All Other Precision Assemblers, Metal	6,280
7.	All Other Clerical and Administrative Support Workers	5,880
8.	All Other Engineering and Related Technicians and Technologists	4,820
9.	All Other Metal and Plastic Machine Operators and Tenders	3,520
10.	All Other Professionals, Paraprofessionals, and Technical Workers	3,030

These 10 occupational categories make 69.8 percent of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRICAL EQUIPMENT AND SUPPLIES
SIC = 36
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	115,020	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	9,390	8.16	N/A
ALL OTHER MANAGERS AND ADMINISTRATORS	9,390	8.16	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	23,190	20.16	N/A
ACCOUNTANTS AND AUDITORS	1,110	0.97	25
ALL OTHER FINANCIAL SPECIALISTS	450	0.39	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	1,330	1.16	27
ALL OTHER MANAGEMENT SUPPORT WORKERS	1,460	1.27	N/A
ALL OTHER ENGINEERS	8,700	7.56	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	430	0.37	31
DRAFTERS	1,730	1.50	19
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	4,820	4.19	N/A
ALL OTHER PHYSICAL SCIENTISTS	30	0.03	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	100	0.09	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	3,030	2.63	N/A
SALES AND RELATED OCCUPATIONS	2,230	1.94	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	**	0.00	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	640	0.56	35
ALL OTHER SALES AND RELATED WORKERS	1,590	1.38	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	14,670	12.75	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	820	0.71	30
STENOGRAPHERS	130	0.11	26
TYPISTS	470	0.41	34
PROCUREMENT CLERKS	220	0.19	30
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,740	1.51	26
PAYROLL AND TIMEKEEPING CLERKS	270	0.23	34
DATA ENTRY KEYERS, EXCEPT COMPOSING	320	0.28	36
ALL OTHER OFFICE MACHINE OPERATORS	520	0.45	N/A
SWITCHBOARD OPERATORS	170	0.15	33
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	1,230	1.07	27
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	1,160	1.01	32
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	1,740	1.51	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	5,880	5.11	N/A
SERVICE OCCUPATIONS	1,790	1.56	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	330	0.29	23
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	960	0.83	21
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	40	0.03	N/A
ALL OTHER SERVICE WORKERS	460	0.40	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	63,780	55.45	N/A
MILLWRIGHTS	110	0.10	15

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRICAL EQUIPMENT AND SUPPLIES
SIC = 36
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	15,230	13.24	N/A
ELECTRICIANS	310	0.27	30
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	110	0.10	31
ALL OTHER CONSTRUCTION TRADES WORKERS	200	0.17	N/A
TOOL AND DIE MAKERS	940	0.82	33
SHEET METAL WORKERS	1,010	0.88	26
ALL OTHER PRECISION METAL WORKERS	2,300	2.00	N/A
ALL OTHER PRECISION WORKERS	460	0.40	N/A
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	240	0.21	35
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	100	0.09	30
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	1,740	1.51	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	3,520	3.06	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	230	0.20	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	50	0.04	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	1,230	1.07	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	2,620	2.28	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	6,280	5.46	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	9,270	8.06	35
ALL OTHER HAND WORKERS	14,140	12.29	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	90	0.08	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	470	0.41	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	690	0.60	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	2,440	2.12	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRICAL INDUSTRIAL APPARATUS
SIC = 362
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,460	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	290	3.89	N/A
FINANCIAL MANAGERS	20	0.27	45
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.13	20
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.27	43
INDUSTRIAL PRODUCTION MANAGERS	50	0.67	19
GENERAL MANAGERS AND TOP EXECUTIVES	150	2.01	23
ALL OTHER MANAGERS AND ADMINISTRATORS	40	0.54	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	680	9.12	N/A
ACCOUNTANTS AND AUDITORS	20	0.27	41
BUDGET ANALYSTS	20	0.27	24
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	40	0.54	18
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.13	19
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.40	N/A
CHEMICAL ENGINEERS	10	0.13	35
ELECTRICAL AND ELECTRONIC ENGINEERS	130	1.74	29
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	30	0.40	13
MECHANICAL ENGINEERS	80	1.07	21
ALL OTHER ENGINEERS	10	0.13	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	110	1.47	21
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	30	0.40	35
DRAFTERS	70	0.94	29
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.27	N/A
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	10	0.13	17
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	40	0.54	15
COMPUTER PROGRAMMERS	20	0.27	25
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	**	0.00	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.13	N/A
SALES AND RELATED OCCUPATIONS	150	2.01	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.13	32
SALES ENGINEERS	100	1.34	48
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	20	0.27	48
ALL OTHER SALES AND RELATED WORKERS	20	0.27	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	600	8.04	N/A
SECRETARIES	140	1.88	13
TYPISTS	20	0.27	25
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	60	0.80	35
PROCUREMENT CLERKS	10	0.13	24
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	70	0.94	22
PAYROLL AND TIMEKEEPING CLERKS	10	0.13	28

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRICAL INDUSTRIAL APPARATUS
SIC = 362
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
BILLING, COST AND RATE CLERKS	20	0.27	13
GENERAL OFFICE CLERKS	30	0.40	47
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.27	18
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.13	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.27	39
SWITCHBOARD OPERATORS	10	0.13	28
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	80	1.07	6
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	30	0.40	34
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	60	0.80	19
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.27	N/A
SERVICE OCCUPATIONS	100	1.34	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.13	17
GUARDS AND WATCH GUARDS	40	0.54	11
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	0.67	15
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,640	75.60	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.13	17
SUPERVISORS-PRODUCTION & OPERATING WORKERS	310	4.16	31
PRECISION INSPECTORS, TESTERS, AND GRADERS	170	2.28	18
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	60	0.80	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.13	N/A
MILLWRIGHTS	20	0.27	24
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.27	45
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.13	25
ELECTRICIANS	60	0.80	18
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	30	0.40	10
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.27	N/A
TOOL AND DIE MAKERS	210	2.82	20
MACHINISTS	60	0.80	26
ALL OTHER PRECISION METAL WORKERS	10	0.13	N/A
SOLDERING,BRAZING MACH OPERATORS AND TENDERS	20	0.27	25
PLAS MOLDING,CASTING MACH SETTERS,SET-UP OPER	30	0.40	25
PLASTIC MOLDING CASTING MACHINE OPER, TENDERS	110	1.47	25
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	40	0.54	24
ELECTROLYTIC PLATING, COATING MACH OPERATORS	120	1.61	25
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	80	1.07	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	80	1.07	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	40	0.54	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	10	0.13	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	740	9.92	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRICAL INDUSTRIAL APPARATUS
SIC = 362
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	3,040	40.75	23
ALL OTHER HAND WORKERS	300	4.02	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	20	0.27	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.13	38
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	50	0.67	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.13	N/A

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** - Employment less than 10

N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# .ELECTRICAL LIGHTING & WIRING EQUIPMENT
SIC = 364
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	6,720	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	490	7.29	N/A
FINANCIAL MANAGERS	40	0.60	14
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.30	14
PURCHASING MANAGERS	20	0.30	12
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	70	1.04	21
INDUSTRIAL PRODUCTION MANAGERS	90	1.34	23
GENERAL MANAGERS AND TOP EXECUTIVES	110	1.64	19
ALL OTHER MANAGERS AND ADMINISTRATORS	140	2.08	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	430	6.40	N/A
ACCOUNTANTS AND AUDITORS	20	0.30	22
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	40	0.60	18
COST ESTIMATORS	10	0.15	23
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.30	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	50	0.74	29
MECHANICAL ENGINEERS	50	0.74	29
ALL OTHER ENGINEERS	70	1.04	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	20	0.30	33
DRAFTERS	60	0.89	23
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.30	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.15	31
COMPUTER PROGRAMMERS	20	0.30	21
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.30	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	0.30	N/A
SALES AND RELATED OCCUPATIONS	220	3.27	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	50	0.74	N/A
ALL OTHER SALES AND RELATED WORKERS	170	2.53	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	750	11.16	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	40	0.60	24
SECRETARIES	90	1.34	16
TYPISTS	20	0.30	33
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.30	19
FILE CLERKS	10	0.15	33
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	0.74	25
PROCUREMENT CLERKS	20	0.30	22
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	0.89	19
PAYROLL AND TIMEKEEPING CLERKS	20	0.30	21
BILLING, COST AND RATE CLERKS	20	0.30	23
GENERAL OFFICE CLERKS	40	0.60	31
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.45	33

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
.ELECTRICAL LIGHTING & WIRING EQUIPMENT
SIC = 364
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER OFFICE MACHINE OPERATORS	10	0.15	N/A
SWITCHBOARD OPERATORS	20	0.30	21
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	70	1.04	15
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	80	1.19	19
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	100	1.49	17
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.30	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	60	0.89	N/A
SERVICE OCCUPATIONS	80	1.19	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	0.74	10
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.15	N/A
ALL OTHER SERVICE WORKERS	20	0.30	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,750	70.68	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	200	2.98	21
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.15	31
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	30	0.45	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	60	0.89	33
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	190	2.83	17
MACHINERY MAINTENANCE MECHANICS	30	0.45	32
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.60	30
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.15	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	40	0.60	N/A
TOOL AND DIE MAKERS	170	2.53	27
ALL OTHER PRECISION WORKERS	240	3.57	N/A
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	80	1.19	35
MACH FORMING OPER & TENDERS, METAL & PLASTIC	200	2.98	33
NONELECTROLYTIC PLATING,COATING MACH OPERATOR	30	0.45	35
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	370	5.51	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	400	5.95	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	100	1.49	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	230	3.42	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	260	3.87	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	430	6.40	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	780	11.61	30
ALL OTHER HAND WORKERS	220	3.27	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.15	30
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.30	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	80	1.19	32
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.15	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	210	3.13	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	330	4.91	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
COMMUNICATIONS EQUIPMENT
SIC = 366
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	33,360	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	2,190	6.56	N/A
FINANCIAL MANAGERS	170	0.51	29
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	90	0.27	29
PURCHASING MANAGERS	40	0.12	25
INDUSTRIAL PRODUCTION MANAGERS	220	0.66	30
GENERAL MANAGERS AND TOP EXECUTIVES	440	1.32	29
ALL OTHER MANAGERS AND ADMINISTRATORS	1,240	3.72	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	9,570	28.69	N/A
ACCOUNTANTS AND AUDITORS	250	0.75	24
ALL OTHER FINANCIAL SPECIALISTS	240	0.72	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	240	0.72	26
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	120	0.36	33
ALL OTHER MANAGEMENT SUPPORT WORKERS	690	2.07	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	2,870	8.60	35
MECHANICAL ENGINEERS	470	1.41	20
ALL OTHER ENGINEERS	1,030	3.09	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	1,060	3.18	30
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	380	1.14	31
DRAFTERS	590	1.77	12
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	440	1.32	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.03	N/A
COMPUTER PROGRAMMERS	320	0.96	16
COMPUTER PROGRAMMER AIDES	80	0.24	35
ALL OTHER MATHEMATICAL SCIENTISTS	240	0.72	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	20	0.06	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	20	0.06	34
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	520	1.56	N/A
SALES AND RELATED OCCUPATIONS	210	0.63	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	30	0.09	N/A
ALL OTHER SALES AND RELATED WORKERS	190	0.57	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	5,240	15.71	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	420	1.26	15
SECRETARIES	1,000	3.00	25
STENOGRAPHERS	110	0.33	22
TYPISTS	270	0.81	27
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	80	0.24	35
FILE CLERKS	60	0.18	31
PROCUREMENT CLERKS	110	0.33	24
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	630	1.89	26

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TABLE
OCCUPATIONS OF EMPLOYEES
COMMUNICATIONS EQUIPMENT
SIC = 366
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PAYROLL AND TIMEKEEPING CLERKS	110	0.33	26
BILLING, COST AND RATE CLERKS	150	0.45	22
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	140	0.42	23
DATA ENTRY KEYERS, EXCEPT COMPOSING	180	0.54	18
ALL OTHER OFFICE MACHINE OPERATORS	140	0.42	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	50	0.15	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	640	1.92	17
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	320	0.96	21
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	190	0.57	23
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	60	0.18	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	590	1.77	N/A
SERVICE OCCUPATIONS	840	2.52	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	270	0.81	16
GUARDS AND WATCH GUARDS	270	0.81	20
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	240	0.72	32
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.06	N/A
ALL OTHER SERVICE WORKERS	50	0.15	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	15,320	45.92	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	100	0.30	34
SUPERVISORS-CCNSTRUCTION & EXTRACTIVE WORKERS	60	0.18	28
SUPERVISORS-PRODUCTION & OPERATING WORKERS	500	1.50	16
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	60	0.18	25
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.03	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	2,930	8.78	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	120	0.36	N/A
MILLWRIGHTS	80	0.24	19
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	200	0.60	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	180	0.54	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	60	0.18	N/A
ELECTRICIANS	110	0.33	22
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	40	0.12	9
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	70	0.21	29
ALL OTHER CONSTRUCTION TRADES WORKERS	60	0.18	N/A
TOOL AND DIE MAKERS	240	0.72	13
MACHINISTS	530	1.59	29
SHEET METAL WORKERS	180	0.54	32
ALL OTHER PRECISION METAL WORKERS	140	0.42	N/A
ALL OTHER PRECISION WORKERS	20	0.06	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	270	0.81	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	340	1.02	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
COMMUNICATIONS EQUIPMENT
SIC = 366
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRINTING PRESS SETTERS, SET-UP OPER	10	0.03	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	50	0.15	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	10	0.03	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	60	0.18	35
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	710	2.13	45
ALL OTHER MACHINE OPERATORS AND TENDERS	750	2.25	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	290	0.87	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	1,490	4.47	N/A
ELECTRICAL & ELECTRONIC ASSEMBLERS	3,570	10.70	10
ALL OTHER HAND WORKERS	900	2.70	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	30	0.09	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	60	0.18	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	560	1.68	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	540	1.62	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.06	N/A

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# TABLE
# OCCUPATIONS OF EMPLOYEES
# ELECTRONIC COMPONENTS AND ACCESSORIES
SIC = 367
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	53,980	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	5,440	10.08	N/A
FINANCIAL MANAGERS	600	1.11	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	180	0.33	N/A
PURCHASING MANAGERS	190	0.35	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	540	1.00	N/A
INDUSTRIAL PRODUCTION MANAGERS	620	1.15	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	1,800	3.33	N/A
ALL OTHER MANAGERS AND ADMINISTRATORS	1,510	2.80	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	10,990	20.36	N/A
ACCOUNTANTS AND AUDITORS	630	1.17	N/A
ALL OTHER FINANCIAL SPECIALISTS	160	0.30	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	830	1.54	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	160	0.30	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	380	0.70	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	2,400	4.45	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	300	0.56	N/A
MECHANICAL ENGINEERS	550	1.02	N/A
ALL OTHER ENGINEERS	160	0.30	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	2,490	4.61	N/A
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	180	0.33	N/A
DRAFTERS	770	1.43	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	240	0.44	N/A
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	110	0.20	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	360	0.67	N/A
COMPUTER PROGRAMMERS	380	0.70	N/A
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	190	0.35	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	120	0.22	N/A
TECHNICAL WRITERS	110	0.20	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	470	0.87	N/A
SALES AND RELATED OCCUPATIONS	1,120	2.07	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	80	0.15	N/A
SALES ENGINEERS	220	0.41	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	490	0.91	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	190	0.35	N/A
ALL OTHER SALES AND RELATED WORKERS	150	0.28	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	6,300	11.67	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	280	0.52	N/A
SECRETARIES	1,870	3.46	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	180	0.33	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRONIC COMPONENTS AND ACCESSORIES
SIC = 367
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	640	1.19	N/A
BILLING, COST AND RATE CLERKS	110	0.20	N/A
GENERAL OFFICE CLERKS	280	0.52	N/A
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	140	0.26	N/A
ALL OTHER OFFICE MACHINE OPERATORS	130	0.24	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	70	0.13	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	750	1.39	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	610	1.13	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	570	1.06	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	670	1.24	N/A
SERVICE OCCUPATIONS	650	1.20	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	500	0.93	N/A
ALL OTHER SERVICE WORKERS	150	0.28	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	29,480	54.61	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	1,940	3.59	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	90	0.17	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	3,340	6.19	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	2,540	4.71	N/A
MACHINERY MAINTENANCE MECHANICS	180	0.33	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	330	0.61	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	150	0.28	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	110	0.20	N/A
TOOL AND DIE MAKERS	260	0.48	N/A
MACHINISTS	1,180	2.19	N/A
SHEET METAL WORKERS	150	0.28	N/A
ALL OTHER PRECISION WORKERS	480	0.89	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	250	0.46	N/A
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	170	0.31	N/A
MACHINE TOOL CUTTING OPERATORS & TENDERS	380	0.70	N/A
MACH FORMING OPER & TENDERS, METAL & PLASTIC	380	0.70	N/A
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	110	0.20	N/A
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	180	0.33	N/A
PLASTIC MOLDING CASTING MACHINE OPER, TENDERS	160	0.30	N/A
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	180	0.33	N/A
ELECTROLYTIC PLATING, COATING MACH OPERATORS	670	1.24	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	170	0.31	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	170	0.31	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	220	0.41	N/A
ELECTRONIC SEMICONDUCTOR PROCESSORS	890	1.65	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	250	0.46	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRONIC COMPONENTS AND ACCESSORIES
SIC = 367
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	120	0.22	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	120	0.22	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	520	0.96	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	270	0.50	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	7,330	13.58	N/A
COIL WINDERS, TAPERS AND FINISHERS	980	1.82	N/A
SOLDERERS AND BRAZERS	540	1.00	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	2,010	3.72	N/A
ALL OTHER HAND WORKERS	1,200	2.22	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	220	0.41	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	90	0.17	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	150	0.28	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,030	1.91	N/A

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SIC 372 and 373

The industry group, Transportation Equipment (SIC 37), includes establishments engaged in the manufacture of equipment for the transportation of passengers and cargo by land, air, and water. Due to the quality of the survey response, occupational distributions are published for only two of the six 3-digit industries comprising this SIC. The two industrial sectors for which occupational profiles were constructed and published are Aircraft and Parts (SIC 372), and Ship and Boat Building and Repairing (SIC 373).

The four industrial segments which failed to meet the requisite criteria for publication were the following: Motor Vehicles and Equipment (SIC 371); Motorcycle and Bicycle Parts (SIC 375); Guided Missiles and Space Vehicles and Parts (SIC 376) ; and Miscellaneous Transportation Equipment (SIC 379).

The Production, Construction, and Maintenance occupational category is the largest in both SIC 372 and SIC 373. In SIC 372, this occupational group accounts for 4,810 jobs or approximately 47 percent of total employment. In SIC 373, the same grouping accounts for 2,970 jobs or approximately 70 percent of total employment.

In SIC 372, the largest number of jobs in the Production, Construction, and Maintenance grouping is found in the mechanical engineer occupation at 740 or approximately 28 percent of the total grouping. In SIC 373, the occupation with the largest number of jobs in this same occupational grouping is welders and cutters at 330 or approximately 11 percent of the total employment in the category.

TABLE
OCCUPATIONS OF EMPLOYEES
AIRCRAFT AND PARTS
SIC = 372
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	10,190	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,500	14.72	N/A
FINANCIAL MANAGERS	10	0.10	9
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.29	3
INDUSTRIAL PRODUCTION MANAGERS	210	2.06	5
GENERAL MANAGERS AND TOP EXECUTIVES	1,010	9.91	5
ALL OTHER MANAGERS AND ADMINISTRATORS	240	2.36	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	2,630	25.81	N/A
ACCOUNTANTS AND AUDITORS	190	1.86	5
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	70	0.69	5
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.29	N/A
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	30	0.29	4
METALLURGISTS & METAL-CERAMIC, MATERIALS ENG	10	0.10	N/A
CIVIL ENGINEERS, INCLUDING TRAFFIC	20	0.20	4
ELECTRICAL AND ELECTRONIC ENGINEERS	20	0.20	10
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	400	3.93	4
SAFETY ENGINEERS, EXCEPT MINING	10	0.10	N/A
MECHANICAL ENGINEERS	740	7.26	5
ALL OTHER ENGINEERS	10	0.10	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	100	0.98	3
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.10	N/A
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	30	0.29	4
DRAFTERS	100	0.98	12
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	110	1.08	3
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	50	0.49	5
COMPUTER PROGRAMMERS	20	0.20	N/A
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	20	0.20	N/A
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	10	0.10	20
STATISTICIANS	10	0.10	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	40	0.39	N/A
LAWYERS	10	0.10	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	20	0.20	N/A
TECHNICAL WRITERS	60	0.59	5
DESIGNERS, EXCEPT INTERIOR DESIGNERS	160	1.57	5
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	380	3.73	5
SALES AND RELATED OCCUPATIONS	30	0.29	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	10	0.10	24
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	10	0.10	22
ALL OTHER SALES AND RELATED WORKERS	**	0.00	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,140	11.19	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
AIRCRAFT AND PARTS
SIC = 372
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SECRETARIES	240	2.36	4
STENOGRAPHERS	60	0.59	4
TYPISTS	30	0.29	5
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.10	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.10	N/A
PROCUREMENT CLERKS	40	0.39	4
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	0.39	8
PAYROLL AND TIMEKEEPING CLERKS	10	0.10	N/A
BILLING, COST AND RATE CLERKS	20	0.20	N/A
GENERAL OFFICE CLERKS	50	0.49	8
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.39	5
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.10	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.29	5
ALL OTHER OFFICE MACHINE OPERATORS	20	0.20	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	300	2.94	8
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	120	1.18	1
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	100	0.98	5
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.20	N/A
SERVICE OCCUPATIONS	80	0.79	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	**	0.00	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	70	0.69	5
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,810	47.20	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	110	1.08	11
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.10	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	400	3.93	2
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	110	1.08	14
MACHINERY MAINTENANCE MECHANICS	30	0.29	N/A
MACHINERY MAINTENANCE WORKERS	30	0.29	20
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.10	14
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	30	0.29	N/A
PRECISION INSTRUMENT REPAIRERS	10	0.10	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	40	0.39	5
ELECTRICIANS	30	0.29	9
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	30	0.29	6
TOOL AND DIE MAKERS	130	1.28	5
MACHINISTS	660	6.48	9
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	190	1.86	5
SHEET METAL WORKERS	590	5.79	9
ALL OTHER PRECISION METAL WORKERS	20	0.20	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
AIRCRAFT AND PARTS
SIC = 372
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	560	5.50	9
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	170	1.67	5
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	100	0.98	20
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	90	0.88	12
MACHINE TOOL CUTTING OPERATORS & TENDERS	170	1.67	15
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	80	0.79	5
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	240	2.36	4
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	30	0.29	33
WELDING MACHINE SETTERS AND SET-UP OPERATORS	100	0.98	21
WELDING MACHINE OPERATORS AND TENDERS	10	0.10	24
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	30	0.29	20
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.10	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.10	N/A
AIRCRAFT STRUCTURE & SYSTEMS ASSEMBLER-PREC.	20	0.20	N/A
MACH BUILDERS & OTHER PRECISION MACH ASSEMBL.	330	3.24	5
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	20	0.20	N/A
WELDERS AND CUTTERS	270	2.65	9
SOLDERERS AND BRAZERS	10	0.10	20
GRINDING & POLISHING WORKERS, HAND	110	1.08	5
STATIONARY ENGINEERS	10	0.10	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.10	8
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.10	22
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.10	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
SHIP AND BOAT BUILDING AND REPAIRING
SIC = 373
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,210	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	250	5.94	N/A
FINANCIAL MANAGERS	20	0.48	9
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.48	N/A
PURCHASING MANAGERS	20	0.48	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.24	N/A
ADMINISTRATIVE SERVICES MANAGERS	10	0.24	11
INDUSTRIAL PRODUCTION MANAGERS	70	1.66	11
GENERAL MANAGERS AND TOP EXECUTIVES	100	2.38	8
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.24	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	490	11.64	N/A
ACCOUNTANTS AND AUDITORS	10	0.24	N/A
BUDGET ANALYSTS	10	0.24	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	40	0.95	10
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.71	N/A
COST ESTIMATORS	30	0.71	5
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.24	N/A
CHEMICAL ENGINEERS	20	0.48	N/A
CIVIL ENGINEERS, INCLUDING TRAFFIC	10	0.24	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.24	N/A
MECHANICAL ENGINEERS	40	0.95	6
MARINE ENGINEERS	60	1.43	3
ALL OTHER ENGINEERS	10	0.24	N/A
MARINE ARCHITECTS	40	0.95	N/A
DRAFTERS	30	0.71	9
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.24	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.24	N/A
TECHNICAL WRITERS	10	0.24	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	120	2.85	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.24	N/A
SALES AND RELATED OCCUPATIONS	30	0.71	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	20	0.48	39
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	10	0.24	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	430	10.21	N/A
SECRETARIES	90	2.14	13
TYPISTS	10	0.24	25
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.24	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	0.48	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	0.95	23
PAYROLL AND TIMEKEEPING CLERKS	10	0.24	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
SHIP AND BOAT BUILDING AND REPAIRING
SIC = 373
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.24	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.24	N/A
SWITCHBOARD OPERATORS	10	0.24	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	140	3.33	1
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	40	0.95	10
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	0.48	18
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.71	N/A
SERVICE OCCUPATIONS	50	1.19	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	20	0.48	N/A
GUARDS AND WATCH GUARDS	30	0.71	5
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,970	70.55	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	210	4.99	7
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	40	0.95	6
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.48	26
AUTOMOTIVE MECHANICS	40	0.95	28
RIGGERS	50	1.19	39
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	20	0.48	N/A
CARPENTERS	180	4.28	19
ELECTRICIANS	120	2.85	5
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	60	1.43	N/A
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	220	5.23	12
INSULATION WORKERS	30	0.71	5
MACHINISTS	120	2.85	19
PRECISION LAYOUT WORKERS, METAL	10	0.24	N/A
SHIPFITTERS	230	5.46	8
SHEET METAL WORKERS	210	4.99	1
PATTERN AND MODEL MAKERS, WOOD	10	0.24	34
ALL OTHER PRECISION WOODWORKERS	40	0.95	N/A
ALL OTHER PRECISION WORKERS	10	0.24	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	80	1.90	17
WELDING MACHINE SETTERS AND SET-UP OPERATORS	50	1.19	41
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.24	N/A
PAINTERS, TRANSPORTATION EQUIPMENT	40	0.95	20
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.24	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	30	0.71	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	40	0.95	N/A
WELDERS AND CUTTERS	330	7.84	12
GRINDING & POLISHING WORKERS, HAND	160	3.80	2
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	190	4.51	50
ALL OTHER HAND WORKERS	10	0.24	38

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TABLE
OCCUPATIONS OF EMPLOYEES
SHIP AND BOAT BUILDING AND REPAIRING
SIC = 373
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.24	N/A
CRANE AND TOWER OPERATORS	50	1.19	4
MECHANIC AND REPAIRER HELPERS	20	0.48	39
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	60	1.43	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	240	5.70	45

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SIC 38

This major group includes establishments engaged in manufacturing instruments (including professional and scientific) for measuring, testing, analyzing, and controlling, and their associated sensors and accessories; optical instruments and lenses; surveying and drafting instruments and supplies; photographic equipment and supplies; and watches and clocks.

Employment in the instruments and related products industry has fallen one percent since the 1980 survey; a time period which saw a 6 percent drop in all manufacturing employment. However, instruments as a percentage of all manufacturing employment rose .4 percent to 9.1 percent within the same time period.

PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

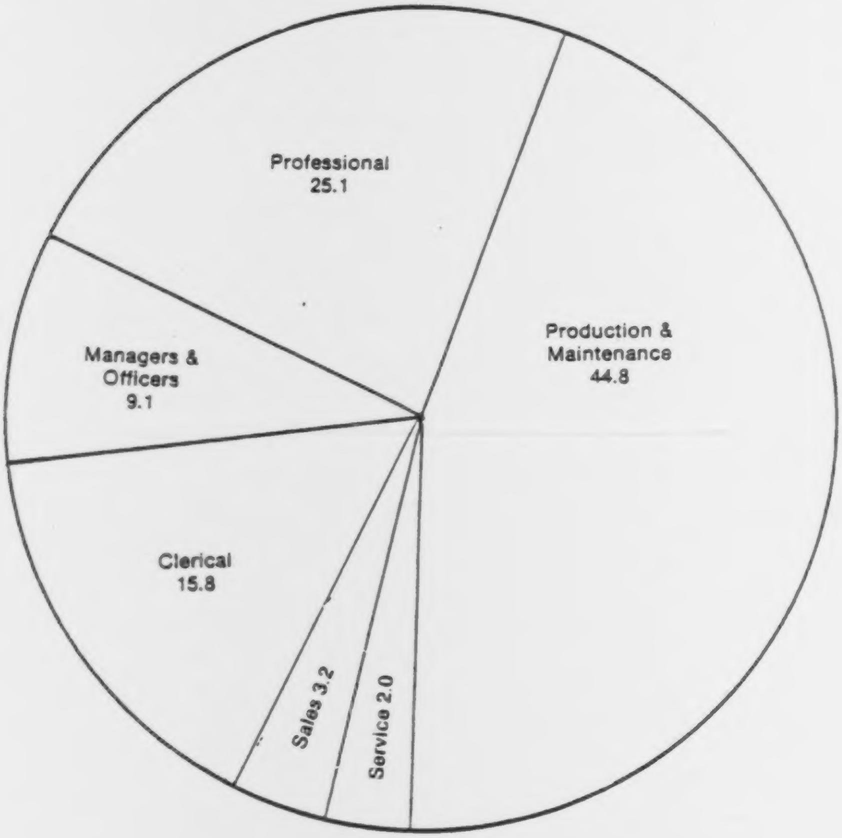
	38	381	382	383	385	386	387
TOTAL	100%	100%	100%	100%	100%	100%	100%
Managerial & Admin. Occs.	9.04	9.64	9.15	11.81	5.30	9.02	4.95
Prof., & Tech. Occs.	25.04	32.55	24.34	38.26	6.18	33.27	5.94
Sales Occs.	3.17	4.17	3.84	1.99	1.77	.79	2.97
Clerical Occs.	15.77	13.54	18.30	15.79	14.35	12.61	10.89
Service Occs.	1.98	2.08	2.33	1.42	1.32	2.54	1.98
Prod., & Maint. Occs.	44.80	38.02	41.81	30.73	70.86	41.77	73.27

The occupational distribution within this industry group shows strong employment levels in the professional and technical occupational categories in SIC 381 (engineering and scientific instruments), 383 (optical instruments and lenses) and 386 (photo equipment and supplies). These high employment levels in the professional and technical categories are due to the engineering and technicial titles (electrical, electronic, mechanical and related fields) which dominate the Research and Development areas.

Conversely, SICs 385 (opthalmic goods) and 387 (watches, clocks, and watch-cases) have a higher percentage in production and maintenance occupations due to assembly and fabrication and machine operators and tenders that are required in these industries.

INSTRUMENTS AND RELATED PRODUCTS (SIC 38)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Cementing and Gluing Machine, Operators and Tenders	4,370
2.	All Other Machine Operators and Tenders	2,680
3.	Secretaries	2,300
4.	Electrical and Electronic Engineering Technicians and Technologists	2,200
5.	Electrical and Electronic Engineers	2,190
6.	Electrical and Electronic Assemblers	1,850
7.	Supervisors-Production and Operating Workers	1,830
8.	General Managers and Top Executives	1,640
9.	All Other Managers and Administrators	1,590
10.	All Other Engineers	1,490

These 10 occupational categories make 38.5% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
INSTRUMENTS AND RELATED PRODUCTS
SIC = 38
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	57,500	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	5,200	9.04	N/A
FINANCIAL MANAGERS	310	0.54	14
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	190	0.33	11
PURCHASING MANAGERS	120	0.21	18
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	540	0.94	23
ADMINISTRATIVE SERVICES MANAGERS	240	0.42	46
INDUSTRIAL PRODUCTION MANAGERS	570	0.99	21
GENERAL MANAGERS AND TOP EXECUTIVES	1,640	2.85	21
ALL OTHER MANAGERS AND ADMINISTRATORS	1,590	2.77	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	14,400	25.04	N/A
ACCOUNTANTS AND AUDITORS	280	0.49	14
BUDGET ANALYSTS	210	0.37	6
ALL OTHER FINANCIAL SPECIALISTS	130	0.23	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	490	0.85	12
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	240	0.42	8
COST ESTIMATORS	170	0.30	26
ALL OTHER MANAGEMENT SUPPORT WORKERS	720	1.25	N/A
CHEMICAL ENGINEERS	160	0.28	48
ELECTRICAL AND ELECTRONIC ENGINEERS	2,190	3.81	16
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	400	0.70	25
MECHANICAL ENGINEERS	560	0.97	20
ALL OTHER ENGINEERS	1,490	2.59	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	2,200	3.83	15
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	1,340	2.33	12
DRAFTERS	890	1.55	11
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	1,020	1.77	N/A
PHYSICISTS AND ASTRONOMERS	20	0.03	22
ALL OTHER PHYSICAL SCIENTISTS	320	0.56	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	310	0.54	17
COMPUTER PROGRAMMERS	290	0.50	14
COMPUTER PROGRAMMER AIDES	70	0.12	22
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	30	0.05	31
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	10	0.02	14
OPTICIANS, DISPENSING AND MEASURING	50	0.09	35
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	130	0.23	N/A
WRITERS AND EDITORS	70	0.12	26
TECHNICAL WRITERS	120	0.21	16
DESIGNERS, EXCEPT INTERIOR DESIGNERS	290	0.50	14
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	200	0.35	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
INSTRUMENTS AND RELATED PRODUCTS
SIC = 38
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SALES AND RELATED OCCUPATIONS	1,820	3.17	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	230	0.40	35
SALES ENGINEERS	590	1.03	30
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	710	1.23	28
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	180	0.31	32
ALL OTHER SALES AND RELATED WORKERS	110	0.19	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	9,070	15.77	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	360	0.63	27
SECRETARIES	2,300	4.00	9
RECEPTIONIST AND INFORMATION CLERKS	80	0.14	35
TYPISTS	360	0.63	25
TYPISTS, WORD PROCESSING EQUIPMENT	110	0.19	26
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	60	0.10	25
FILE CLERKS	310	0.54	29
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	210	0.37	20
PROCUREMENT CLERKS	110	0.19	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	820	1.43	14
PAYROLL AND TIMEKEEPING CLERKS	100	0.17	32
BILLING, COST AND RATE CLERKS	140	0.24	27
GENERAL OFFICE CLERKS .	580	1.01	15
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.05	11
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	190	0.33	13
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.02	8
DATA ENTRY KEYERS, EXCEPT COMPOSING	210	0.37	17
ALL OTHER OFFICE MACHINE OPERATORS	10	0.02	N/A
SWITCHBOARD OPERATORS	200	0.35	17
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	970	1.69	13
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	770	1.34	11
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	750	1.30	11
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	60	0.10	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	330	0.57	N/A
SERVICE OCCUPATIONS	1,140	1.98	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	60	0.10	38
GUARDS AND WATCH GUARDS	330	0.57	15
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	650	1.13	9
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.03	N/A
ALL OTHER SERVICE WORKERS	80	0.14	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	50	0.09	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	50	0.09	14

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TABLE
OCCUPATIONS OF EMPLOYEES
INSTRUMENTS AND RELATED PRODUCTS
SIC = 38
-REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	25,760	44.80	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	1,830	3.18	8
PRECISION INSPECTORS, TESTERS, AND GRADERS	1,060	1.84	19
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	1,490	2.59	11
MACHINERY MAINTENANCE MECHANICS	130	0.23	32
MAINTENANCE REPAIRERS, GENERAL UTILITY	530	0.92	10
PRECISION INSTRUMENT REPAIRERS	470	0.82	46
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	580	1.01	N/A
CARPENTERS	100	0.17	14
ELECTRICIANS	280	0.49	7
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	50	0.09	19
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	110	0.19	10
ALL OTHER CONSTRUCTION TRADES WORKERS	50	0.09	N/A
TOOL AND DIE MAKERS	280	0.49	23
PRECISION INSTRUMENT MAKERS	150	0.26	22
MACHINISTS	1,100	1.91	24
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	50	0.09	35
SHEET METAL WORKERS	90	0.16	14
PRECISION WOODWORKERS	70	0.12	12
PRECISION OPTICAL GOODS WORKERS	430	0.75	25
ALL OTHER PRECISION WORKERS	30	0.05	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	190	0.33	38
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	170	0.30	45
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	90	0.16	41
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	100	0.17	29
MACHINE TOOL CUTTING OPERATORS & TENDERS	620	1.08	30
MACH FORMING OPER & TENDERS, METAL & PLASTIC	360	0.63	35
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	200	0.35	34
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	50	0.09	31
NONELECTROLYTIC PLATING, COATING MACH SETTERS	10	0.02	28
NONELECTROLYTIC PLATING,COATING MACH OPERATOR	50	0.09	9
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	210	0.37	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	490	0.85	N/A
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	280	0.49	11
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	330	0.57	23
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	60	0.10	50
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	110	0.19	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	2,680	4.66	N/A
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	1,460	2.54	28
WATCH,CLOCK,CHRONOMETER ASSEMB,ADJUST.,CALIB.	240	0.42	34

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TABLE
OCCUPATIONS OF EMPLOYEES
INSTRUMENTS AND RELATED PRODUCTS
SIC = 38
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION ASSEMBLERS, METAL	780	1.36	N/A
ELECTRICAL & ELECTRONIC ASSEMBLERS	1,850	3.22	32
WELDERS AND CUTTERS	210	0.37	35
PAINTING, COATING & DECORATING WORKERS- HAND	50	0.09	29
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	4,370	7.60	21
ALL OTHER HAND WORKERS	1,040	1.81	N/A
STATIONARY ENGINEERS	30	0.05	29
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.02	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.02	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	70	0.12	16
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	80	0.14	38
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	40	0.07	15
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	260	0.45	30
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	380	0.66	N/A

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N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# ENGINEERING & SCIENTIFIC INSTRUMENTS
SIC = 381
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	EMPLOYMENT PERCENT OF TOTAL	EMPLOYMENT RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,840	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	370	9.64	N/A
FINANCIAL MANAGERS	30	0.78	11
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.52	13
PURCHASING MANAGERS	10	0.26	17
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.52	20
ADMINISTRATIVE SERVICES MANAGERS	10	0.26	N/A
INDUSTRIAL PRODUCTION MANAGERS	40	1.04	7
GENERAL MANAGERS AND TOP EXECUTIVES	190	4.95	17
ALL OTHER MANAGERS AND ADMINISTRATORS	50	1.30	7
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,250	32.55	N/A
ACCOUNTANTS AND AUDITORS	20	0.52	10
BUDGET ANALYSTS	20	0.52	N/A
ALL OTHER FINANCIAL SPECIALISTS	10	0.26	12
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	60	1.56	9
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.52	15
COST ESTIMATORS	10	0.26	17
ALL OTHER MANAGEMENT SUPPORT WORKERS	80	2.08	7
ELECTRICAL AND ELECTRONIC ENGINEERS	240	6.25	17
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	50	1.30	5
MECHANICAL ENGINEERS	90	2.34	22
ALL OTHER ENGINEERS	70	1.82	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	320	8.33	21
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.26	14
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	50	1.30	3
DRAFTERS	90	2.34	26
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.26	12
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.26	46
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	10	0.26	47
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.52	16
COMPUTER PROGRAMMERS	40	1.04	11
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	10	0.26	28
TECHNICAL WRITERS	10	0.26	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	0.52	N/A
SALES AND RELATED OCCUPATIONS	160	4.17	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.52	27
SALES ENGINEERS	40	1.04	31
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	100	2.60	21

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TABLE
OCCUPATIONS OF EMPLOYEES
ENGINEERING & SCIENTIFIC INSTRUMENTS
SIC = 381
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	520	13.54	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.52	17
SECRETARIES	120	3.13	14
RECEPTIONIST AND INFORMATION CLERKS	10	0.26	20
TYPISTS	30	0.78	7
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.26	14
FILE CLERKS	10	0.26	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.26	11
PROCUREMENT CLERKS	10	0.26	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	90	2.34	14
PAYROLL AND TIMEKEEPING CLERKS	10	0.26	N/A
BILLING, COST AND RATE CLERKS	10	0.26	28
GENERAL OFFICE CLERKS	30	0.78	16
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.26	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.26	20
ALL OTHER OFFICE MACHINE OPERATORS	10	0.26	N/A
SWITCHBOARD OPERATORS	20	0.52	24
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	0.52	9
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	40	1.04	21
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	1.04	18
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.26	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.78	N/A
SERVICE OCCUPATIONS	80	2.08	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.26	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	60	1.56	24
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.52	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,460	38.02	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	100	2.60	18
PRECISION INSPECTORS, TESTERS, AND GRADERS	140	3.65	12
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	50	1.30	16
MACHINERY MAINTENANCE MECHANICS	10	0.26	43
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.26	N/A
PRECISION INSTRUMENT REPAIRERS	30	0.78	19
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	30	0.78	N/A
CARPENTERS	10	0.26	11
ELECTRICIANS	10	0.26	N/A
TOOL AND DIE MAKERS	10	0.26	16
PRECISION INSTRUMENT MAKERS	40	1.04	41

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TABLE
OCCUPATIONS OF EMPLOYEES
ENGINEERING & SCIENTIFIC INSTRUMENTS
SIC = 381
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MACHINISTS	110	2.86	21
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	10	0.26	40
SHEET METAL WORKERS	20	0.52	41
ALL OTHER PRECISION WORKERS	10	0.26	N/A
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	10	0.26	24
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	20	0.52	7
MACHINE TOOL CUTTING OPERATORS & TENDERS	10	0.26	40
MACH FORMING OPER & TENDERS, METAL & PLASTIC	10	0.26	16
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	10	0.26	47
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	10	0.26	47
NONELECTROLYTIC PLATING, COATING MACH SETTERS	10	0.26	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	50	1.30	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.26	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.26	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	20	0.52	N/A
ELECTROMECHANICAL EQUIP ASSEMB.-PRECISION	180	4.69	17
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	80	2.08	40
ALL OTHER PRECISION ASSEMBLERS, METAL	30	0.78	N/A
MACHINE ASSEMBLERS	30	0.78	19
ELECTRICAL & ELECTRONIC ASSEMBLERS	230	5.99	26
SOLDERERS AND BRAZERS	40	1.04	48
PAINTING, COATING & DECORATING WORKERS- HAND	10	0.26	29
GRINDING & POLISHING WORKERS, HAND	10	0.26	12
ALL OTHER HAND WORKERS	70	1.82	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.26	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.26	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
MEASURING & CONTROLLING INSTRUMENTS
SIC = 382
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	21,860	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	2,000	9.15	N/A
FINANCIAL MANAGERS	110	0.50	33
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	60	0.27	28
PURCHASING MANAGERS	60	0.27	26
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	250	1.14	33
GENERAL MANAGERS AND TOP EXECUTIVES	700	3.20	45
ALL OTHER MANAGERS AND ADMINISTRATORS	830	3.80	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	5,320	24.34	N/A
ACCOUNTANTS AND AUDITORS	190	0.87	17
BUDGET ANALYSTS	20	0.09	41
ALL OTHER FINANCIAL SPECIALISTS	10	0.05	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	210	0.96	24
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	70	0.32	16
ALL OTHER MANAGEMENT SUPPORT WORKERS	50	0.23	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	1,380	6.31	24
MECHANICAL ENGINEERS	200	0.91	29
ALL OTHER ENGINEERS	430	1.97	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	1,250	5.72	23
DRAFTERS	340	1.56	27
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	370	1.69	N/A
ALL OTHER PHYSICAL SCIENTISTS	30	0.14	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.05	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	170	0.78	29
COMPUTER PROGRAMMERS	140	0.64	28
COMPUTER PROGRAMMER AIDES	50	0.23	30
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.09	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	30	0.14	34
WRITERS AND EDITORS	50	0.23	40
TECHNICAL WRITERS	70	0.32	24
DESIGNERS, EXCEPT INTERIOR DESIGNERS	120	0.55	24
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	120	0.55	25
SALES AND RELATED OCCUPATIONS	840	3.84	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	110	0.50	N/A
SALES ENGINEERS	480	2.20	35
ALL OTHER SALES AND RELATED WORKERS	260	1.19	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	4,000	18.30	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	210	0.96	24
SECRETARIES	910	4.16	17
TYPISTS	160	0.73	33

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TABLE
OCCUPATIONS OF EMPLOYEES
MEASURING & CONTROLLING INSTRUMENTS
SIC = 382
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TYPISTS, WORD PROCESSING EQUIPMENT	30	0.14	48
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	30	0.14	45
FILE CLERKS	280	1.28	32
PROCUREMENT CLERKS	50	0.23	37
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	310	1.42	33
BILLING, COST AND RATE CLERKS	80	0.37	42
GENERAL OFFICE CLERKS	170	0.78	34
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	90	0.41	21
DATA ENTRY KEYERS, EXCEPT COMPOSING	150	0.69	23
ALL OTHER OFFICE MACHINE OPERATORS	10	0.05	N/A
SWITCHBOARD OPERATORS	80	0.37	33
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	580	2.65	20
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	230	1.05	30
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	410	1.88	14
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	50	0.23	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	170	0.78	N/A
SERVICE OCCUPATIONS	510	2.33	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	40	0.18	48
GUARDS AND WATCH GUARDS	110	0.50	40
ALL OTHER FOOD SERVICE WORKERS	20	0.09	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	290	1.33	16
ALL OTHER SERVICE WORKERS	50	0.23	17
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	40	0.18	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	40	0.18	16
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	9,140	41.81	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	730	3.34	15
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	200	0.91	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	520	2.38	31
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	330	1.51	42
ALL OTHER MACHINERY MAINTENANCE MECHANICS	50	0.23	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	50	0.23	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	250	1.14	N/A
CARPENTERS	50	0.23	27
ELECTRICIANS	60	0.27	28
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	30	0.14	27
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.09	47
ALL OTHER CONSTRUCTION TRADES WORKERS	40	0.18	N/A
PRECISION INSTRUMENT MAKERS	70	0.32	36
MACHINISTS	490	2.24	46
SHEET METAL WORKERS	20	0.09	37

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# TABLE
# OCCUPATIONS OF EMPLOYEES
# MEASURING & CONTROLLING INSTRUMENTS
SIC = 382
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION METAL WORKERS	110	0.50	N/A
ALL OTHER PRECISION WORKERS	40	0.18	N/A
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	40	0.18	35
MACHINE TOOL CUTTING OPERATORS & TENDERS	540	2.47	32
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	130	0.59	38
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	50	0.23	31
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	380	1.74	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	330	1.51	N/A
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	40	0.18	32
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	30	0.14	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	370	1.69	N/A
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	1,040	4.76	38
WATCH,CLOCK,CHRONOMETER ASSEMB,ADJUST.,CALIB.	70	0.32	33
ALL OTHER PRECISION ASSEMBLERS, METAL	210	0.96	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	360	1.65	N/A
ELECTRICAL & ELECTRONIC ASSEMBLERS	1,100	5.03	46
WELDERS AND CUTTERS	140	0.64	42
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	700	3.20	39
ALL OTHER HAND WORKERS	240	1.10	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	20	0.09	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	40	0.18	20
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	60	0.27	43
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	160	0.73	43
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	20	0.09	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	60	0.27	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
OPTICAL INSTRUMENTS AND LENSES
SIC = 383
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,030	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	830	11.81	N/A
FINANCIAL MANAGERS	30	0.43	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.43	6
PURCHASING MANAGERS	20	0.28	6
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	40	0.57	7
ADMINISTRATIVE SERVICES MANAGERS	90	1.28	26
INDUSTRIAL PRODUCTION MANAGERS	240	3.41	33
GENERAL MANAGERS AND TOP EXECUTIVES	200	2.84	12
ALL OTHER MANAGERS AND ADMINISTRATORS	190	2.70	15
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	2,690	38.26	N/A
ACCOUNTANTS AND AUDITORS	30	0.43	20
ALL OTHER FINANCIAL SPECIALISTS	70	1.00	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	60	0.85	13
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.43	32
COST ESTIMATORS	120	1.71	31
ALL OTHER MANAGEMENT SUPPORT WORKERS	310	4.41	6
CHEMICAL ENGINEERS	100	1.42	34
ELECTRICAL AND ELECTRONIC ENGINEERS	340	4.84	18
MECHANICAL ENGINEERS	70	1.00	26
ALL OTHER ENGINEERS	330	4.69	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	270	3.84	8
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	110	1.56	34
DRAFTERS	150	2.13	7
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	510	7.25	28
ALL OTHER PHYSICAL SCIENTISTS	30	0.43	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.14	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.14	16
COMPUTER PROGRAMMERS	60	0.85	27
COMPUTER PROGRAMMER AIDES	10	0.14	8
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.14	N/A
TECHNICAL WRITERS	20	0.28	5
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	30	0.43	N/A
SALES AND RELATED OCCUPATIONS	140	1.99	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.28	17
SALES ENGINEERS	40	0.57	25
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	60	0.85	18
ALL OTHER SALES AND RELATED WORKERS	20	0.28	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,110	15.79	N/A
SECRETARIES	300	4.27	15

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# TABLE
# OCCUPATIONS OF EMPLOYEES
# OPTICAL INSTRUMENTS AND LENSES
SIC = 383
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
RECEPTIONIST AND INFORMATION CLERKS	10	0.14	N/A
TYPISTS, WORD PROCESSING EQUIPMENT	30	0.43	11
PROCUREMENT CLERKS	30	0.43	8
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	100	1.42	7
PAYROLL AND TIMEKEEPING CLERKS	10	0.14	13
BILLING, COST AND RATE CLERKS	10	0.14	22
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.57	16
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.28	5
SWITCHBOARD OPERATORS	20	0.28	15
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	140	1.99	23
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	0.71	28
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	1.00	28
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	300	4.27	N/A
SERVICE OCCUPATIONS	100	1.42	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	30	0.43	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	70	1.00	7
ALL OTHER SERVICE WORKERS	10	0.14	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,160	30.73	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	190	2.70	23
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	20	0.28	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	190	2.70	27
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	60	0.85	22
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	30	0.43	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	50	0.71	N/A
CARPENTERS	10	0.14	17
ELECTRICIANS	20	0.28	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.14	N/A
PRECISION INSTRUMENT MAKERS	40	0.57	34
ALL OTHER PRECISION METAL WORKERS	310	4.41	N/A
PRECISION OPTICAL GOODS WORKERS	240	3.41	34
ALL OTHER PRECISION WORKERS	20	0.28	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	60	0.85	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	100	1.42	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.14	N/A
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	280	3.98	33
ALL OTHER PRECISION ASSEMBLERS, METAL	80	1.14	N/A
ELECTRICAL & ELECTRONIC ASSEMBLERS	220	3.13	19
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	110	1.56	23
ALL OTHER HAND WORKERS	90	1.28	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	20	0.28	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
OPHTHALMIC GOODS
SIC = 385
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,530	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	240	5.30	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.44	17
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	0.66	37
INDUSTRIAL PRODUCTION MANAGERS	30	0.66	47
GENERAL MANAGERS AND TOP EXECUTIVES	90	1.99	22
ALL OTHER MANAGERS AND ADMINISTRATORS	70	1.55	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	280	6.18	N/A
ALL OTHER FINANCIAL SPECIALISTS	40	0.88	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.44	42
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.22	N/A
ALL OTHER ENGINEERS	80	1.77	N/A
DRAFTERS	10	0.22	47
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.22	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.22	40
ALL OTHER PHYSICAL SCIENTISTS	10	0.22	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.22	47
COMPUTER PROGRAMMERS	10	0.22	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.22	N/A
OPTICIANS, DISPENSING AND MEASURING	30	0.66	50
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.22	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	30	0.66	N/A
SALES AND RELATED OCCUPATIONS	80	1.77	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	20	0.44	N/A
ALL OTHER SALES AND RELATED WORKERS	60	1.32	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	650	14.35	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.22	40
SECRETARIES	80	1.77	19
TYPISTS	20	0.44	44
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.22	25
FILE CLERKS	10	0.22	24
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	1.10	18
PROCUREMENT CLERKS	20	0.44	7
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	1.10	20
BILLING, COST AND RATE CLERKS	40	0.88	30
GENERAL OFFICE CLERKS	70	1.55	29
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.66	8
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.22	23
SWITCHBOARD OPERATORS	20	0.44	21
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	120	2.65	5

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
OPHTHALMIC GOODS
SIC = 385
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	1.55	35
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	0.88	N/A
SERVICE OCCUPATIONS	60	1.32	N/A
GUARDS AND WATCH GUARDS	20	0.44	40
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	40	0.88	20
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.22	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,210	70.86	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	10	0.22	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	90	1.99	29
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	30	0.66	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	90	1.99	17
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	90	1.99	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.66	41
ELECTRICIANS	10	0.22	24
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	10	0.22	N/A
TOOL AND DIE MAKERS	80	1.77	23
MACHINISTS	60	1.32	50
SHEET METAL WORKERS	10	0.22	38
PRECISION OPTICAL GOODS WORKERS	140	3.09	39
ELECTROLYTIC PLATING, COATING MACH OPERATORS	20	0.44	48
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	160	3.53	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	350	7.73	N/A
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	80	1.77	N/A
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.22	34
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	60	1.32	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	40	0.88	N/A
SOLDERERS AND BRAZERS	100	2.21	N/A
GRINDING & POLISHING WORKERS, HAND	80	1.77	8
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	1,570	34.66	12
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.22	34
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	60	1.32	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	30	0.66	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
PHOTO EQUIPMENT & SUPPLIES
SIC = 386
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	11,420	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,030	9.02	N/A
FINANCIAL MANAGERS	80	0.70	7
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	50	0.44	8
PURCHASING MANAGERS	10	0.09	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	100	0.88	12
ADMINISTRATIVE SERVICES MANAGERS	30	0.26	23
INDUSTRIAL PRODUCTION MANAGERS	60	0.53	7
GENERAL MANAGERS AND TOP EXECUTIVES	130	1.14	14
ALL OTHER MANAGERS AND ADMINISTRATORS	570	4.99	6
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	3,800	33.27	N/A
ACCOUNTANTS AND AUDITORS	10	0.09	41
BUDGET ANALYSTS	150	1.31	5
ALL OTHER FINANCIAL SPECIALISTS	10	0.09	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	90	0.79	6
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	120	1.05	5
COST ESTIMATORS	10	0.09	32
ALL OTHER MANAGEMENT SUPPORT WORKERS	200	1.75	7
ELECTRICAL AND ELECTRONIC ENGINEERS	130	1.14	32
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.09	14
MECHANICAL ENGINEERS	90	0.79	36
ALL OTHER ENGINEERS	890	7.79	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	220	1.93	7
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	1,000	8.76	5
DRAFTERS	250	2.19	5
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.44	N/A
PHYSICISTS AND ASTRONOMERS	10	0.09	40
ALL OTHER PHYSICAL SCIENTISTS	210	1.84	8
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.09	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	90	0.79	4
COMPUTER PROGRAMMERS	50	0.44	15
OPTICIANS, DISPENSING AND MEASURING	20	0.18	41
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	20	0.18	6
WRITERS AND EDITORS	10	0.09	10
TECHNICAL WRITERS	10	0.09	22
DESIGNERS, EXCEPT INTERIOR DESIGNERS	110	0.96	4
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	70	0.61	13
SALES AND RELATED OCCUPATIONS	90	0.79	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	60	0.53	46

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PHOTO EQUIPMENT & SUPPLIES
SIC = 386
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	0.26	40
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,440	12.61	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	30	0.26	4
SECRETARIES	600	5.25	3
TYPISTS	10	0.09	29
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	0.44	10
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	90	0.79	8
GENERAL OFFICE CLERKS	140	1.23	3
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.35	12
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.09	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.18	12
SWITCHBOARD OPERATORS	20	0.18	12
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	170	1.49	6
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	220	1.93	6
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	0.18	21
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.26	N/A
SERVICE OCCUPATIONS	290	2.54	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.09	43
GUARDS AND WATCH GUARDS	160	1.40	3
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	120	1.05	6
ALL OTHER SERVICE WORKERS	**	0.00	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,770	41.77	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	520	4.55	5
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	40	0.35	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.09	30
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	740	6.48	7
MACHINERY MAINTENANCE MECHANICS	10	0.09	37
MACHINERY MAINTENANCE WORKERS	10	0.09	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	370	3.24	6
PRECISION INSTRUMENT REPAIRERS	50	0.44	20
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	60	0.53	N/A
CARPENTERS	30	0.26	4
ELECTRICIANS	180	1.58	5
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.09	N/A
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	70	0.61	5
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.18	28
TOOL AND DIE MAKERS	40	0.35	N/A
MACHINISTS	110	0.96	12
SHEET METAL WORKERS	30	0.26	4
PRECISION WOODWORKERS	70	0.61	12

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TABLE
OCCUPATIONS OF EMPLOYEES
PHOTO EQUIPMENT & SUPPLIES
SIC = 386
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION WORKERS	10	0.09	N/A
NONELECTROLYTIC PLATING,COATING MACH OPERATOR	50	0.44	9
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	10	0.09	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.09	N/A
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	200	1.75	16
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	200	1.75	19
ALL OTHER MACHINE OPERATORS AND TENDERS	1,570	13.75	N/A
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	20	0.18	43
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	10	0.09	N/A
ALL OTHER HAND WORKERS	130	1.14	16
STATIONARY ENGINEERS	20	0.18	25
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.09	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	50	0.44	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	120	1.05	N/A

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# TABLE
# OCCUPATIONS OF EMPLOYEES
# WATCHES, CLOCKS AND WATCHCASES
SIC = 387
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,010	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	50	4.95	N/A
FINANCIAL MANAGERS	10	0.99	20
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.99	29
PURCHASING MANAGERS	10	0.99	20
INDUSTRIAL PRODUCTION MANAGERS	10	0.99	29
GENERAL MANAGERS AND TOP EXECUTIVES	20	1.98	40
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.99	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	60	5.94	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.99	20
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.99	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.99	11
MECHANICAL ENGINEERS	20	1.98	21
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	10	0.99	25
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.99	N/A
SALES AND RELATED OCCUPATIONS	30	2.97	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	1.98	45
ALL OTHER SALES AND RELATED WORKERS	10	0.99	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	110	10.89	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	1.98	45
SECRETARIES	20	1.98	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	10	0.99	46
PAYROLL AND TIMEKEEPING CLERKS	10	0.99	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.99	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.99	27
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	1.98	22
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	1.98	N/A
SERVICE OCCUPATIONS	20	1.98	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.99	9
ALL OTHER SERVICE WORKERS	10	0.99	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	740	73.27	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	20	1.98	21
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.99	29
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	50	4.95	17
MACHINERY MAINTENANCE MECHANICS	30	2.97	28
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.99	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.99	11
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.99	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.99	N/A
TOOL AND DIE MAKERS	30	2.97	14

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TABLE
OCCUPATIONS OF EMPLOYEES
WATCHES, CLOCKS AND WATCHCASES
SIC = 387
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MACHINISTS	10	0.99	38
ALL OTHER PRECISION METAL WORKERS	10	0.99	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	20	1.98	42
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	20	1.98	N/A
MACH FORMING OPER & TENDERS, METAL & PLASTIC	10	0.99	43
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	50	4.95	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.99	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.99	N/A
WATCH,CLOCK,CHRONOMETER ASSEMB,ADJUST.,CALIB.	170	16.83	46
ALL OTHER PRECISION ASSEMBLERS, METAL	40	3.96	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	100	9.90	N/A
PAINTING, COATING & DECORATING WORKERS- HAND	20	1.98	36
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	20	1.98	13
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	1.98	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	20	1.98	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	1.98	N/A

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SIC 39

This industry group includes establishments primarily engaged in manufacturing products not classified in any other manufacturing group. This means that many of these industry are too diverse, making comparisons between industries difficult and of questionable value. Analyzing the occupational data at the group level is likewise of questionable value.

This industry group had employment of 26,600 in 1980 and fell to 22,400 in 1983, a decline of 4,200 jobs representing -15.8 percent. This employment decline stands in marked contrast to the percentage growth, though slight, of +0.9 for the durables manufacturing sector as a whole. There were 2,500 jobs lost between 1981 and 1982 which represents nearly 60 percent of the total three year job loss. This industry group accounted for 3.9 percent of manufacturing employment in 1980 but this percentage has been falling steadily and was 3.5 percent of manufacturing employment in 1983.

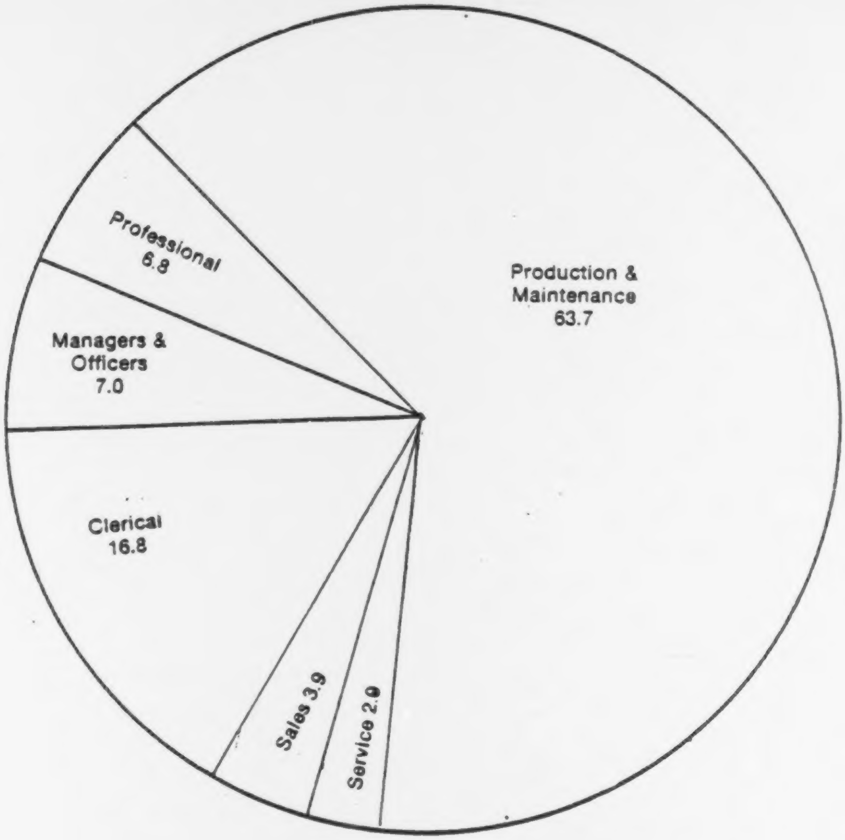
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	39	391	396	399
TOTAL	100%	100%	100%	100%
Managerial & Administrative Occs.	7.01	7.68	5.71	5.86
Profess., Paraprofess., Tech. Occs.	6.74	5.35	4.76	4.95
Sales and Related Occs.	3.85	3.90	3.81	4.28
Clerical & Admin. Support Occs.	16,74	21.27	16.19	10.14
Service	2.04	2.78	1.90	1.35
Prod., Constr., and Maint., Occs.	63.57	59.02	67.62	73.42

The occupations within this industry group are largely concentrated within the Production, Construction and Maintenance occupations with nearly 65 percent of all occupations in this occupational grouping in 1983.

MISC. MANUFACTURING INDUSTRIES (SIC 39)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	All Other Metal and Plastic Machine Operators and Tenders	1,880
2.	Assemblers and Fabricators except Machine, Electrical, Electronic and Precision	1,850
3.	All Other Helpers, Laborers, and Material Movers, Hand	1,450
4.	All Other Hand Workers	1,250
5.	All Other Precision Metal Workers	960
6.	Supervisor-Production and Operating Workers	790
7.	All Other Machine Operators and Tenders	730
8.	General Managers and Top Executives	740
9.	All Other Sales and Related Workers	720
10.	Traffic, Shipping, and Receiving Clerks	590

These 10 occupational categories make up 49.8% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. MANUFACTURING INDUSTRIES
SIC = 39
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	22,100	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,550	7.01	N/A
FINANCIAL MANAGERS	150	0.68	26
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	60	0.27	25
PURCHASING MANAGERS	50	0.23	23
GENERAL MANAGERS AND TOP EXECUTIVES	740	3.35	21
ALL OTHER MANAGERS AND ADMINISTRATORS	550	2.49	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,490	6.74	N/A
ACCOUNTANTS AND AUDITORS	140	0.63	29
ALL OTHER FINANCIAL SPECIALISTS	50	0.23	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	110	0.50	19
COST ESTIMATORS	30	0.14	35
ALL OTHER MANAGEMENT SUPPORT WORKERS	100	0.45	N/A
ALL OTHER ENGINEERS	220	1.00	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	230	1.04	N/A
COMPUTER PROGRAMMERS	80	0.36	25
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	530	2.40	N/A
SALES AND RELATED OCCUPATIONS	850	3.85	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	130	0.59	34
ALL OTHER SALES AND RELATED WORKERS	720	3.26	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,700	16.74	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	130	0.59	29
SECRETARIES	560	2.53	12
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	40	0.18	34
FILE CLERKS	90	0.41	30
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	280	1.27	28
PROCUREMENT CLERKS	40	0.18	33
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	350	1.58	19
GENERAL OFFICE CLERKS	390	1.76	24
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	80	0.36	27
DATA ENTRY KEYERS, EXCEPT COMPOSING	160	0.72	33
ALL OTHER OFFICE MACHINE OPERATORS	50	0.23	N/A
SWITCHBOARD OPERATORS	40	0.18	32
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	200	0.90	21
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	160	0.72	26
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	590	2.67	21
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	130	0.59	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	410	1.86	N/A
SERVICE OCCUPATIONS	450	2.04	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	250	1.13	12

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TABLE
OCCUPATIONS OF EMPLOYEES
MISC. MANUFACTURING INDUSTRIES
SIC = 39
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	200	0.90	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	14,050	63.57	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	790	3.57	14
PRECISION INSPECTORS, TESTERS, AND GRADERS	70	0.32	28
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	440	1.99	24
MACHINERY MAINTENANCE MECHANICS	90	0.41	34
MAINTENANCE REPAIRERS, GENERAL UTILITY	230	1.04	22
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	190	0.86	N/A
ELECTRICIANS	80	0.36	25
ALL OTHER CONSTRUCTION TRADES WORKERS	200	0.90	N/A
TOOL AND DIE MAKERS	190	0.86	23
MACHINISTS	160	0.72	29
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	70	0.32	32
ALL OTHER PRECISION METAL WORKERS	960	4.34	N/A
CABINETMAKERS AND BENCH CARPENTERS	270	1.22	36
ALL OTHER PRECISION PRINTING WORKERS	50	0.23	N/A
ALL OTHER PRECISION WORKERS	260	1.18	N/A
MACHINE TOOL CUTTING OPERATORS & TENDERS	380	1.72	35
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	260	1.18	33
PLAS MOLDING,CASTING MACH SETTERS,SET-UP OPER	140	0.63	31
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	530	2.40	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	1,880	8.51	N/A
SCREEN PRINTING MACHINE SETTERS, SET-UP OPER	80	0.36	28
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	80	0.36	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	220	1.00	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	780	3.53	N/A
ELECTRICAL & ELECTRONIC ASSEMBLERS	10	0.05	N/A
PAINTING, COATING & DECORATING WORKERS- HAND	370	1.67	36
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	1,850	8.37	31
ALL OTHER HAND WORKERS	1,250	5.66	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	30	0.14	32
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.09	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.05	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	160	0.72	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	460	2.08	24
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,490	6.74	N/A

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N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
JEWELRY, SILVER & PLATED WARE
SIC = 391
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	8,980	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	690	7.68	N/A
FINANCIAL MANAGERS	80	0.89	27
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.22	34
PURCHASING MANAGERS	20	0.22	29
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	90	1.00	30
GENERAL MANAGERS AND TOP EXECUTIVES	230	2.56	34
ALL OTHER MANAGERS AND ADMINISTRATORS	250	2.78	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	480	5.35	N/A
ACCOUNTANTS AND AUDITORS	40	0.45	37
ALL OTHER FINANCIAL SPECIALISTS	40	0.45	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.22	43
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.33	37
COST ESTIMATORS	20	0.22	42
ALL OTHER MANAGEMENT SUPPORT WORKERS	40	0.45	N/A
ALL OTHER ENGINEERS	50	0.56	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.56	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.11	N/A
COMPUTER PROGRAMMERS	40	0.45	35
ALL OTHER MATHEMATICAL SCIENTISTS	50	0.56	N/A
ALL OTHER HEALTH DIAGNOSING & TREATING PRACT.	10	0.11	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	90	1.00	N/A
SALES AND RELATED OCCUPATIONS	350	3.90	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	30	0.33	N/A
ALL OTHER SALES AND RELATED WORKERS	320	3.56	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,910	21.27	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	90	1.00	30
SECRETARIES	210	2.34	16
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.22	39
FILE CLERKS	60	0.67	42
PROCUREMENT CLERKS	30	0.33	43
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	160	1.78	33
BILLING, COST AND RATE CLERKS	50	0.56	45
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	30	0.33	43
DATA ENTRY KEYERS, EXCEPT COMPOSING	110	1.22	44
ALL OTHER OFFICE MACHINE OPERATORS	40	0.45	N/A
SWITCHBOARD OPERATORS	20	0.22	33
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	170	1.89	22
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	130	1.45	30
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	280	3.12	23

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TABLE
OCCUPATIONS OF EMPLOYEES
JEWELRY, SILVER & PLATED WARE
SIC = 391
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	130	1.45	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	380	4.23	N/A
SERVICE OCCUPATIONS	250	2.78	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	10	0.11	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	110	1.22	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	120	1.34	19
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.22	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,300	59.02	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	250	2.78	34
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	50	0.56	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	260	2.90	22
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.11	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	30	0.33	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	70	0.78	48
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.11	N/A
ELECTRICIANS	30	0.33	50
ALL OTHER CONSTRUCTION TRADES WORKERS	50	0.56	N/A
TOOL AND DIE MAKERS	170	1.89	23
PRECISION ETCHERS & ENGRAVERS, HAND, MACHINE	60	0.67	41
SHEET METAL WORKERS	10	0.11	32
ALL OTHER PRECISION METAL WORKERS	490	5.46	N/A
ALL OTHER PRECISION WOODWORKERS	10	0.11	N/A
ALL OTHER PRECISION PRINTING WORKERS	20	0.22	N/A
ALL OTHER PRECISION WORKERS	150	1.67	N/A
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	120	1.34	46
PLASTIC MOLDING CASTING MACHINE OPER, TENDERS	20	0.22	16
METAL MOLDING & CASTING MACH OPERATOR,TENDER	40	0.45	42
NONELECTROLYTIC PLATING,COATING MACH OPERATOR	50	0.56	29
HEATING EQUIPMENT SETTERS & SET-UP OPERATORS	30	0.33	27
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	650	7.24	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	530	5.90	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	100	1.11	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.11	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	140	1.56	N/A
ENGRAVING & PRINTING WORKERS, HAND	120	1.34	40
GRINDING & POLISHING WORKERS, HAND	510	5.68	50
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	260	2.90	40
ALL OTHER HAND WORKERS	370	4.12	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.11	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	0.22	48

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TABLE
OCCUPATIONS OF EMPLOYEES
JEWELRY, SILVER & PLATED WARE
SIC = 391
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.11	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.11	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	140	1.56	N/A
HAND PACKERS AND PACKAGERS	360	4.01	49
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	140	1.56	N/A

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** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
COSTUME JEWELRY AND NOTIONS
SIC = 396
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,050	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	60	5.71	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.95	N/A
INDUSTRIAL PRODUCTION MANAGERS	10	0.95	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	30	2.86	6
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.95	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	50	4.76	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.95	N/A
ALL OTHER ENGINEERS	10	0.95	N/A
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.95	N/A
DRAFTERS	10	0.95	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.95	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.95	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.95	N/A
SALES AND RELATED OCCUPATIONS	40	3.81	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.95	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	2.86	17
ALL OTHER SALES AND RELATED WORKERS	10	0.95	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	170	16.19	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.95	N/A
SECRETARIES	20	1.90	6
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	1.90	7
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	20	1.90	7
PAYROLL AND TIMEKEEPING CLERKS	10	0.95	N/A
BILLING, COST AND RATE CLERKS	10	0.95	N/A
GENERAL OFFICE CLERKS	30	2.86	3
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.95	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.95	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.95	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	1.90	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.95	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.95	N/A
SERVICE OCCUPATIONS	20	1.90	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	1.90	N/A
ALL OTHER SERVICE WORKERS	10	0.95	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	710	67.62	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	40	3.81	5
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.95	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
COSTUME JEWELRY AND NOTIONS
SIC = 396
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	1.90	10
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	10	0.95	N/A
MACHINERY MAINTENANCE MECHANICS	10	0.95	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.95	11
TOOL AND DIE MAKERS	10	0.95	N/A
MACHINISTS	70	6.67	N/A
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	30	2.86	7
PRECISION HAND WORKERS, JEWELRY RELATED PRODS	90	8.57	8
ALL OTHER PRECISION METAL WORKERS	10	0.95	N/A
PRECISION DETAIL DESIGN DECORATORS & PAINTERS	10	0.95	38
ALL OTHER PRECISION WORKERS	10	0.95	N/A
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	10	0.95	26
MACHINE TOOL CUTTING OPERATORS & TENDERS	10	0.95	27
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	30	2.86	14
ROLL MACH SETTER & SET-UP OPER. METAL PLASTIC	10	0.95	N/A
PLAS MOLDING,CASTING MACH SETTERS,SET-UP OPER	10	0.95	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	40	3.81	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.95	N/A
SEWING MACHINE OPERATORS, GARMENT	10	0.95	N/A
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	10	0.95	N/A
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.95	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.95	N/A
ELECTRICAL & ELECTRONIC ASSEMBLERS	10	0.95	N/A
SOLDERERS AND BRAZERS	30	2.86	22
PAINTING, COATING & DECORATING WORKERS- HAND	40	3.81	14
ENGRAVING & PRINTING WORKERS, HAND	10	0.95	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	60	5.71	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.95	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.95	14
HAND PACKERS AND PACKAGERS	40	3.81	8
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	4.76	N/A

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TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS MANUFACTURING
SIC = 399
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,440	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	260	5.86	N/A
FINANCIAL MANAGERS	10	0.23	27
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.23	27
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.23	28
INDUSTRIAL PRODUCTION MANAGERS	20	0.45	6
GENERAL MANAGERS AND TOP EXECUTIVES	200	4.50	12
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.23	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	220	4.95	N/A
ACCOUNTANTS AND AUDITORS	30	0.68	21
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	30	0.68	14
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.23	N/A
MECHANICAL ENGINEERS	10	0.23	24
DRAFTERS	30	0.68	27
COMPUTER PROGRAMMERS	10	0.23	35
COMPUTER PROGRAMMER AIDES	10	0.23	20
DESIGNERS, EXCEPT INTERIOR DESIGNERS	70	1.58	27
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.23	N/A
SALES AND RELATED OCCUPATIONS	190	4.28	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.23	19
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	60	1.35	34
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	100	2.25	22
ALL OTHER SALES AND RELATED WORKERS	20	0.45	13
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	450	10.14	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.23	25
SECRETARIES	110	2.48	14
TYPISTS	20	0.45	31
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	1.13	22
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	90	2.03	18
PAYROLL AND TIMEKEEPING CLERKS	10	0.23	28
GENERAL OFFICE CLERKS	70	1.58	24
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.23	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	1.58	22
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.23	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.68	N/A
SERVICE OCCUPATIONS	60	1.35	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	**	0.00	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	1.13	13

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TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS MANUFACTURING
SIC = 399
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,260	73.42	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	230	5.18	21
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.23	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	20	0.45	32
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	30	0.68	N/A
MACHINERY MAINTENANCE MECHANICS	10	0.23	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	90	2.03	27
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.23	N/A
ELECTRICIANS	20	0.45	28
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.45	N/A
MACHINISTS	10	0.23	11
ALL OTHER PRECISION METAL WORKERS	230	5.18	N/A
CABINETMAKERS AND BENCH CARPENTERS	200	4.50	29
ALL OTHER PRECISION WOODWORKERS	30	0.68	N/A
ALL OTHER PRECISION WORKERS	60	1.35	N/A
PLASTIC MOLDING CASTING MACHINE OPER, TENDERS	80	1.80	28
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	210	4.73	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	420	9.46	N/A
SCREEN PRINTING MACHINE SETTERS, SET-UP OPER	70	1.58	30
PRINTING PRESS MACHINE OPERATORS AND TENDERS	20	0.45	11
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	10	0.23	24
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	90	2.03	30
ALL OTHER MACHINE OPERATORS AND TENDERS	190	4.28	N/A
PAINTING, COATING & DECORATING WORKERS- HAND	80	1.80	29
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	490	11.04	N/A
ALL OTHER HAND WORKERS	160	3.60	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.23	35
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.23	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	40	0.90	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	60	1.35	19
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	70	1.58	N/A
HAND PACKERS AND PACKAGERS	290	6.53	27
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.23	N/A

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THE MAJOR OCCUPATIONAL CATEGORIES USED IN THE OCCUPATIONAL EMPLOYMENT STATISTICS SURVEY

DESCRIPTION

MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS

Include in this division top and middle-level managers, administrators, and executives. Primary duties are policy making, planning, staffing, directing or controlling the activities of industrial, commercial, governmental or other establishments........Organization of this section - Occupations in this section are ordered functionally as follows: Staff and administrative managerial; industry specific managerial; and a residual 'All Other' category........Special instructions - Exclude first-line supervisors and managers with first-line duties. These workers, if professional, paraprofessional or technical, should be reported with the workers they supervise. All other supervisors and manager/supervisors should be reported in separate categories provided in each division. Exclude owners and partners of unincorporated firms. Include only managers and administrators who are exempt from the minimum wage and overtime provision of the Fair Labor Standards Act.

PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS

Include in this division persons concerned with the theoretical or practical aspects of such fields as science, art, education, law and business relations where substantial post-secondary educational preparation, or equivalent on-the-job training or experience is required........Organization of this section are ordered functionally as follows: General management support; engineering and scientific; data processing and mathematical; social science, law and related; teaching and related; medicine and health; writing, art and related; and a residual 'All Other' category........Special instructions - Quality Control Workers should be reported according to the nature of the quality control process (i.e. chemical, mechanical, biological). Thus, an Engineer engaged in quality control work of a chemical nature should be reported as a Chemical Engineer........Unlike the other divisions of this form, first-line supervisors and managers with first-line duties should be reported along with the workers they supervise.

SALES AND RELATED OCCUPATIONS

Include in this division persons selling goods or services and others directly related to sales........Organization of this section - Occupations in this section are ordered functionally as follows: Supervising; sales of services; commodity sales; and a residual 'All Other' category........Special instructions - Managers of smaller establishments who typically have first-line supervisory duties and engage in the same activities as the workers they supervise should be reported in the First Line Supervisors and Manager/Supervisors occupation.

CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS

Include in this division persons performing office and plant clerical tasks, such as typing, filing, computer operating, records keeping (personnel, stock, production, billing, etc.); and mail preparation and distributing........ Organization of this section - Occupations in this section are ordered functionally as follows: Supervising; unique and industry specific (occupations); secretarial and general office; office machine operating; communications and mail distributing; material recording and other production related; and a residual 'All Other' category.

SERVICE OCCUPATIONS

Include in this division workers in occupations relating to protective service, food service, health assisting service, cleaning and building service, and personal service........Organization of this section - Occupations in this section are ordered functionally as follows: Supervising; protective services; food services; health; cleaning; personal services; and a residual 'All Other' category.

AGRICULTURAL, FORESTRY, FISHING, AND RELATED OCCUPATIONS

Include in this Division workers concerned with agricultural production, forestry, and fishing. Also included in this division are agriculture related workers such as animal caretakers and groundskeepers........Organization of this section - Occupations in this section are ordered functionally as follows: Supervising; forestry; and a residual 'All Other' category that covers fishing and agricultural production........Special instructions - Machine and manual occupations that are found in, but not unique to, the forestry industry are found in the next Division.

PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS

Include in this Division all skilled, semiskilled, and unskilled workers performing machine and manual tasks involving production, construction, operating, maintenance, repair, and material handling operations........Organization of this section - Occupations in this section are ordered functionally as follows: Supervising; inspecting; repair; construction; precision production; machine setting, operating, and tending; assembling and hand working; plant and system operation; transportation and material moving equipment operating; and helpers, laboring, and manual material moving........Special instructions - Because of the differing experience and training required, production workers performing precision tasks (whether hand or machine) are reported separately. In addition, the remaining production worker groups are divided between machine and manual operations. The use of hand held power tools is considered a manual operation for the purpose of this survey.